Structured Notes According to

PSYCHIATRY

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LIST OF IMPORTANT TOPICS

☛ Psychopharmacology:

- Antidepressants
- Anti psychotics
- Anti anxiety
- Mood stabilisers esp. Lithium

☛ Psychotherapy:

- Esp CBT
- ECT

☛ Toxicology:

- Withdrawal and intoxication symptoms
- Alcohol most important

☛ Child Psychiatry:

- ADHD
- Autism
- ID

☛ Personality disorders

☛ Schizophrenia and mood disorders:

- Definitions DSM-V
- Case scenarios Diagnosis

☛ Sleep Disorders, Narcolepsy:

- To do along with Sleep Physiology

☛ Conversion Disorders:

- Definitions DSM-V

☛ Delirium vs dementia

☛ Defence Mechanisms

☛ Diagnostic Criteria Time Cut Off

LEARNING OBJECTIVES

Basics of Psychiatry

- History taking in psychiatry
- Role of informant
- Mental status examination (MSE)
- Affect and mood
  - Quality
  - Fluctuation
  - Appropriateness and congruence
- Perception and its abnormalities
- Criterions of hallucination
- Thought (cognition)
  - Abnormalities of stream of thought
  - Types of formal thought disorder
- Delusions
  - Types of delusion
  - Capgras syndrome
  - Fregoli syndrome
- Abnormalities of possession of thought
- Higher mental function
  - Attention
  - Concentration
  - Memory
  - Judgement
  - Insight and levels of insight
- Organic vs functional mental disorders
- Psychosis vs neuroses

1 BASICS OF PSYCHIATRY

- The term psychiatry was coined by Johann Christian Reil 00:00:00
- History taking is the first component in psychiatry
- Similar to other medicinal branches

INFORMANT 00:02:15

- Most psychiatry Patients are not able to tell their complaints
- Role of informant is very crucial in these cases
- Informant can be friend/ family member /spouse /mother/ father/ son/ daughter
- Someone who knows the symptoms of the patient in detail
- Helps to reach diagnosis
- Not every person can be an informant
- Informant should be reliable

Reliability of informant

- Consistency
  - The history given by the informant should be exactly same in all interviews
  - For e.g.
    - → When information of patient is taken from his father, the information given by father should be same in second interview.
- Coherence
  - The information provided should be logically connected to each other.
  - First half of the information should be connected to the other half.
- Chronological information
  - The information should be provided in a proper timely manner.
  - For e.g.
    - → How did the symptoms start?
    - → What were the symptoms in beginning?
    - → How the symptoms progressed over time? etc.
- Closeness with the patient
  - Informant should be close to the patient and must be aware of the patient's symptoms
  - For e.g.
    - → If the informant who came with patient is living in another city, he/she is not a reliable informant.
  - Concern with the patient
  - Informant should be genuinely concerned for the patient. This is important in medicolegal cases. For e.g.: Wife who filed a case against her husband, is not a reliable informant for him.
- If all the 5C's are fulfilled, then we consider informant as reliable.

Adequacy of information

- Whether or not If the history given by the informant or patient is enough to reach a diagnosis

MENTAL STATUS EXAMINATION (MSE) 00:08:28

- Clinical examination in Psychiatry
- Signs and symptoms of Psychiatric disorders of patient are recorded.
- Components of MSE
  A. General appearance and behaviour
  B. Speech
  C. Mood and affect
  D. Perception
  E. Thought

A. GENERAL APPEARANCE AND BEHAVIOR

- Just by seeing the appearance and observing the appearance and behavior of the patient, we can get clues about Psychiatric disorder.
- For e.g.:
  - Patient comes to OPD, and he is wearing a pink shirt, orange pants, goggles, hat, wearing lot of makeup.
  - This appearance itself gives a clue that this patient probably has manic symptoms.

B. SPEECH

- If a patient comes to OPD and he is speaking very rapidly/copious amount and it's not possible to interrupt the speech is possibly suggesting towards Mania. (In Mania speech volume gets increased, tone gets increased)

C. MOOD AND AFFECT 00:08:28

Mood	Affect
• Long term or longitudinal emotional state	• Short term or cross-sectional emotional state

• felt inwards	• Expressed outwards
• Describes internal emotional state	• External expression
• For e.g.: I was sitting sad for one month but today I am smiling. In this case my mood is Sad and my affect is happy (Smiling at this particular point of time)	• For e.g.: If I am smiling – expression of smile means I am happy, smile is an external expression of emotions would be called as affect. It is an external expression you can also observe it. Thirdly it is what I do in a cross-sectional manner.

- Both these terms refer to emotions
- Affect and Mood are described under various subheadings
  1. Quality
  2. Fluctuation
  3. Appropriateness and congruence

1. QUALITY

- Predominant emotional state at particular point of time.
- For e.g.: Patient may be happy, sad, angry, irritated or bored.
- Affect and Mood are different terms but often used interchangeably.
- Abnormalities of Quality
  - Elevation of mood
  - Dysphoria
  - Depressed Mood

Elevation of mood

- Euphoria
  - State of extreme happiness without any reason
  - for e.g.: Extreme happiness when failed in an exam without any reason.
  - Extreme happiness on getting rank-1 in exam is not euphoria.
  - Euphoria is seen in Mania or Hypomania.
- Elation
  - One step higher to euphoria.
  - It is euphoria + ↑ psychomotor activity (PMA)
  - Seen in Mania.
  - For e.g.: Patient is happy and running and jumping.
- Exaltation
  - Euphoria + ↑ PMA (psychomotor activity) + delusion of grandiosity
  - For e.g.: the patient thinks he is richest man on earth or most powerful person on earth
- Ecstasy
  - State of extreme happiness/epitome of happiness
  - Sense of bliss: Seen in people who meditate)
- All these abnormalities are seen in patient with Mania/Hypomania.

Important Information

- **Psychomotor activity is Change in motor activity due to psychological reasons**

Dysphoria 00:17:50

- Predominant mood state is irritability.
- For e.g.: The patient gets angry and irritated at very small things.
- Dysphoria is also seen in patients with Mania.

Depressed Mood

- Persistent or pervasive sadness
  - Pervasive
    - → Means in all the domains of life
    - → whether Patient is playing, reading, or watching TV, depressed mood is present
  - Persistent
    - → Sadness present all the time
- Depressed mood is seen in depression.

2. FLUCTUATIONS IN AFFECT AND MOOD 00:19:39

- Normally there is some level of fluctuation in affect and mood.
- Example of normal fluctuation
  - Happy in the morning but sad after checking poor performance in exam and on finding silly mistakes becoming irritable.
- In certain psychiatric disorder pathological fluctuations are seen.
- Example of abnormal fluctuation
  - At one point of time patient is smiling, giggling and all of sudden he starts crying without any reason.
  - From too happy to too sad.

Labile (Unstable) mood or emotional lability

- Emotions are unstable
- For e.g.: A man comes to your OPD he is laughing at one moment and crying at another moment
- Seen in patient with mania

Affective flattening /flat affect /emotional blunting/blunt affect

- Exact opposite of Labile (Unstable) mood
- Example
  - You crack a joke - patient does not laugh
  - You slap him patient does not get angry.
- Seen in Schizophrenia.
- There is also difference between flat affect and blunt affect based on range. But still they are considered similar.

3. APPROPRIATENESS AND CONGRUENCE

00:22:50

Appropriateness

- Whether my emotional state is matching or in sync with the external environment or not.
- If it's in sync, then it's called "affect is in appropriate state".
- If it is not in sync, then it is called "inappropriate affect"
- Example
  - I go to a birthday party (social situation): And I am happy in this situation -Affect is in appropriate state
  - I go to a birthday party (social situation): And I am crying saying why this man is still alive, in this situation - Affect inappropriate state
  - I go to a funeral (social situation): And I am laughing - inappropriate affect

Congruence

- Congruence is more of an internal comparison
- whether my emotions are matching with my thought content or not.
- What I am thinking, What I am speaking and how I am appearing emotionally, whether it is matching or not.
- Example
  - A patient comes to you is describing how his mother died, the thought content is about death of his mother,
  - If his emotional state while describing this is Sadness - this is congruent affect/mood)
  - If the patient is laughing, giggling while describing about death of his mother then it is called incongruent mood.
- Inappropriate and Incongruent affect are features of Schizophrenia

Alexithymia

- Inability to understand emotions of other people and inability to express your own emotions
- Sometimes we confuse Alexithymia with affective flattening but
  - In affective flattening the patient does not feel anything i.e., the patient does not have any emotions
  - In alexithymia the patient does have emotions, but he is not able to express them. Sometimes we also say alexithymia as lack of words to describe emotions

Anhedonia

- Inability to feel pleasure in previously pleasurable activities.
- Things which used to make happy in past no longer is making me happy.
- Example
  - Watching Cricket used to make me happy, going on dates used to make me happy now nothing makes me happy.
- Feature of depression.
- Can also be seen in schizophrenia.

Important Information

- Part of brain involved in generation of emotions: Limbic system (Hippocampus, amygdala, hypothalamus, cingulate gyrus, and related thalamic and cortical areas.)
- Part of brain involved in Regulation/control of emotions: Frontal lobe
  - Example: I remembered a joke in my lecture theatre, but I controlled myself and didn't laugh this control was due to Regulatory area by Frontal lobe

D. PERCEPTION

00:29:25

- Fourth component of mental status examination (MSE)
- Large number of psychiatric abnormalities present with perception abnormality
- Any information coming through a sensory organs is defined as perception.

Important Information

- There are five basic types of perception: Auditory perception, Visual perception, Olfactory perception, Gustatory Perception and tactile perception.

Abnormalities of perception Example Diagnosis

Example	Diagnosis
• Patient sees a black pen while looking at a black pen	• Normal perception

• Patient sees a black umbrella while looking at a black pen	• Abnormal perception
	  ○ False Perception of a real object/stimulus
	  ○ This is example of Illusion.

- Patient sees a black umbrella while looking at nothing

- Abnormal perception
  - False Perception in the absence of any object/stimulus
  - This is example of Hallucination

Important Information

Q. A man while walking down the lane, he is frightened by snake on road (which was just a rope), this is known as?

Ans. Illusion

Criterions of Hallucination 00:31:44

1. Occur in absence of any object/stimulus
2. Are as vivid (Detailed/clear) as a real perception.

- For e.g.: when asked to Describe about a real person we say:
  - That person is wearing a white shirt, he was wearing a mic, he was wearing a gray blazer, he was wearing a spectacle.
  - All these details are suggestive of vividity.
- Similarly, hallucinations are so vivid that the person who is having it is not able to differentiate between what is hallucination and what is reality.

- **Example**
  - A patient comes in OPD and say I see a man standing next to me, He is 6 feet tall, wearing a white shirt, black pant, a hat, black goggles and a bow tie
  - All these things shows that the perception is vivid.
  - It is Hallucination as the person is not actually present there.
- **Example**
  - A patient comes in OPD and describes a man standing next to him and describes that I see couple of dots and these looks like a face, and he says he can't see anything more.
  - In this case whatever the patient is seeing is not vivid
  - so, it's not a case of hallucination

3. Occur in outer and objective space (Anything Outside body)

- For e.g.: Hearing voices from outside
- If patient say, I can see Deepika Padukone with closed eyes, Saw her inside my mind
  - Inner and subjective space.
  - So, this not hallucination

4. Are not under voluntary willful control

- Example
  - Patient says I can hear voices which are not under my control
  - Cannot start it, cannot stop it
  - Voices start on their own and stop on their own.
- Example
  - Patient says I can see Deepika Padukone when I close my eyes and this ability is under my control.
  - When I open my eyes, she disappears.
- If 1st, 2nd and 4th criteria get fulfilled but 3rd criteria is not fulfilled, which means instead of occurring in outer and objective space, the perception is occurring in inner and subjective space. This is known as Pseudo hallucination.

Understand with an example

Q. The patient says I hear some voices which nobody else hears it, even people sitting next to me are not able to hear it. On taking history he says:

1. Only he is able to hear it: Criteria 1 is fulfilled (Exception to First criteria: Reflex Hallucination.)

2. The voices are very clear, voices are of a middle-aged woman, she keeps on talking to me: Criteria 2 is fulfilled

3. These voices are coming from my mind: Criteria 3 is not fulfilled

4. I cannot start or stop the voices: the voices come and go on its own: Criteria 4 is fulfilled

Dx: Pseudo hallucination

Important Information

- **Hallucinations: Outer and objective space**
- **Pseudo hallucinations: Inner and Subjective space**

Psychiatric disorder is classified into two broader classifications

a. Organic Disorders

- Disorders in which brain parenchyma is involved like tumors, stroke, delirium, dementia etc.
- These are disorders of brain.

b. Functional Disorders

- No abnormality is found in brain parenchyma on MRI, CT scan.
  - So, these are disorders of mind. For e.g.:

Important Information

- M/C hallucination overall: Auditory Hallucination
- Most common hallucination associated with functional disorders: Auditory hallucination.
- most common hallucination associated with organic mental disorders: Visual hallucination.
- Cocaine intoxication is associated with Tactile hallucination
- Olfactory and Gustatory hallucination are typically associated with which lobe: Temporal lobe
- In temporal lobe epilepsy all type of hallucinations is seen.
- In Schizophrenia all type of hallucinations are seen

Specific hallucinations 00:41:05

- Hypnagogic hallucination
  - While "going to sleep"
- Hypnopompic hallucination
  - While getting up from sleep
- Both are Features of Narcolepsy

Reflex hallucinations 00:42:10

- Stimulus in one modality produces hallucinations in another modality
  - Modality refers to olfactory, auditory, visual, gustatory etc.
- Example
  - Patient says: "Whenever I see a tube light, I start hearing voice of Deepika Padukone"
  - Stimulus is in Visual modality whereas Hallucination is in Auditory modality.
  - Diagnosis: Reflex Hallucination
- This is a morbid variety of synesthesia
  - Synesthesia means Combination of sensations
- Seen in Cannabis and lysergic acid diethyl amide (LSD) intoxication

Important Information

- In reflex hallucination we are not fulfilling the Ist criteria
- So reflex hallucination is an Exception to first criteria for hallucination.

Important Information

Q. A young boy comes to your OPD and says he can hear lights and he can see music. what is the abnormality called as?
Ans. Reflex hallucination

Q. Patient complaints of Criss cross of perception. what is the abnormality?
Ans. Reflex hallucination

00:47:05

Functional hallucination

- Stimulus in one modality produces hallucinations in same modality
- Example
  - Patient says "Whenever I hear noise of air conditioner, I also start hearing voice of Deepika Padukone"
  - In this case: Stimulus is in auditory modality and hallucination is also in auditory modality.
- How is functional hallucination different from illusion?

Illusion	Functional Hallucination
• Object is itself perceived in wrong manner	• object is perceived the way it is and along with another object which is not present there
• Example: The patient sees only a black umbrella when he looked at a black pen	• Example: The patient sees both black pen and black umbrella while looking at a black pen

Previous Year's Questions

Q. Which of the following statement about hallucinations is false?
A. They are perceived as 'not real'
B. They appear to be coming from external world
C. Sensory organs are not involved
D. 'Pseudo hallucinations' are described as being perceived by mind's eye

E. THOUGHT (COGNITION)

00:49:16

- Most important component of MSE
- All the mental process that helps in acquiring information, all of them are put together under broader term Cognition.
- The term Cognition and thought are often used interchangeably.
- "Thought is something which I know off", Perception is occurring at that point of time.

Understand with an example

- There is a black board behind my back. Is it a thought or Perception?
  - Answer. Thought
- I turn behind towards the board and say: there is black board. Is it a thought or perception?
  - Answer: Perception
- India gate is in Delhi. Is it a thought or perception?
  - Answer: Thought
- Gateway of India is in Mumbai. Is it a thought or perception?
  - Answer: Thought

Characteristics of thoughts

1. STREAM/FLOW OF THOUGHTS

- Speed by which thoughts come to your mind
- Continuity of thinking
- Example
  - My name is Praveen Tripathi, I did my MBBS and MD from Delhi, Currently I am working as psychiatrist in Delhi.
  - It is the Normal stream of Thought

Abnormalities of Stream of Thought

00:52:29

- Flight of ideas
  - Increased speed of thinking
  - Connection between thoughts appears to be due to chance factors such as rhyming.
  - Mind does not have time to properly connect or organize that thoghts
  - Example
    - → I live in Delhi, my cat has a big belly, I love eating jelly, elly. Ellly
  - Usually, a feature of mania
- Inhibition or slowed thinking
  - Thoughts come slowly and progresses with a slow rate
  - It's kind of reverse of flight of ideas.
  - Seen in depression.
- Apart from these two, other main abnormalities of stream of thoughts are: Circumstantiality, Perseveration and Thought block
  - These three abnormalities can be characterized in both stream of thoughts and form of thoughts.
  - According to Fish's Psychopathology- These three are disorders of stream of thoughts
  - Later, psychiatrist named Nancy Anderson wrote a landmark article in which she included these three disorders as form of thoughts. This is widely followed now.

Previous Year's Questions

Q. All the statements are true about thought except:
A. Perseveration is out of context repetition
B. Circumstantiality is over inclusion of irrelevant details while getting back to the original point
C. Verbigeration is senseless repetition
D. Vorbeireden is skirting around the end point but never reaching it
E. Loosening of association is logically connected thoughts with loss of goal

2. FORM OF THOUGHT

- Refers to the organization of thinking/association between thoughts.
- Example
  - Thought 1: - My name is Praveen, and I am a doctor
  - Thought 2: - I live in Delhi.
  - Thought 1 has got two components. My name is Praveen is component A, And I am a doctor is component B. In this case the thought A is meaningfully connected to thought B and Thought 1 is meaningfully connected to Thought 2.
  - So this is a well-organized thought i;e Form of thought is normal.
- Any abnormality in form of thoughts is known as Formal

thought disorders
- Characteristic abnormality in schizophrenia

Types of Formal Thought Disorder

- Derailment
  - Loss of association between successive thoughts.
  - For e.g.: My name is Praveen; Beijing is capital of China
- Loosening of association
  - Loss of connection between components of same thought
  - For e.g.: My name is Praveen, and it is going to be the biggest blockbuster of this year
- Incoherence (Word Salad)
  - Complete loss of organization
  - no meaning gets conveyed
  - For e.g.: The patient says "My Praveen OK China Bye"
- Circumstantiality
  - Thought progresses with inclusion of unnecessary details
  - The goal of thought is reached
  - Example: In which branch you want to do PG? If the answer is -Medicine
    - → This is normal way of thinking
    - → Goal of thought is reached immediately
  - Example: In which branch you want to do PG? If the answer is – "In first year I used to like Anatomy, by the time I reached second year I started liking pathology, in the 3rd year the SR of ophthalmology was very pretty so I also started liking ophthalmology. In the final year I started liking surgery. Now I think after finishing my internship I will do my job, with jób I will earn some money, with money I will get married and once I get married, I will use the salary to buy a seat of Medicine"
    - → In this case patient is telling unnecessary details but he finally replies the correct answer.
    - → This is abnormal way of thinking.
    - → Finally goal of thought is reached
- Tangentiality
  - Thought is related to goal in a distant way, but the goal is never reached.
  - Example
    - → Psychiatrist: Who is your Favorite actress?
    - → Patient: Sir, Bollywood is based on Mumbai. Bollywood movies are mostly based on relationship. Hollywood is in Los Angeles California. Hollywood movies are more action packed. My Uncle also lives in Los Angeles California.
    - → In this case the thought is related to goal but the goal is never reached.
- Neologism (Neo means New, Logisim means word)
  - The patient creates a new word, whose derivation cannot be understood
  - Example
    - → A patient holding pen says its "Tintintapa"
  - Amongst formal thought disorder Neologism is specifically related to schizophrenia. (High predictive value)
  - Neologism is a rare finding
- Metonyms (Word approximations)
  - Old words are used in unconventional/strange way
  - Example
    - → The patient holding pen says that it is a presentation regulator mechanism.
    - → In this case patient uses a strange word but still we can understand what he is trying to convey
    - → But if he calls it Tintintapa then it is not understood
- Clanging (Clang associations)
  - Words are associated with each other as they sound similar and there may be lack of any meaningful Connection
  - Example
    - → I make sense out of nonsense and nonsense is the essence of turbulence of life. In this case words are all connected because they sound similar, but otherwise they are not connected meaningfully.
  - Clang associations are seen in patient with Flight of Ideas.
- Perseveration
  - Perseveration can also be classified as disorder of stream of thought.
  - Repetition of same response beyond point of relevance.
  - Example
    - → Psychiatrist: What is your name?
    - → Patient: Ramesh Singh
    - → Psychiatrist: What is your father's name?
    - → Patient: Ramesh Singh
    - → Psychiatrist: Where do you stay?
    - → Patient: Ramesh Singh
    - → Psychiatrist: Who is President of India?
    - → Patient: Ramesh Singh
  - In this case the patient is repeating the same response beyond point of relevance
  - Also suggestive of organic brain damage (Brain parenchyma)
- Thought blocking
  - Thought blocking can also be described as disorder of stream of thought.
  - Sudden arrest of train of thoughts, leaving a blank (No thoughts for a period of time)

Previous Year's Questions

Q. Which of the following is a formal thought disorder?

(NEET 2021)

A. Derailment
B. Obsession
C. Delusion
D. Thought insertion

01:08:26

3. CONTENT OF THOUGHT (WHAT ARE YOU THINKING ABOUT)

Delusions

- Delusions are False belief (But all false belief are not delusions)

Previous Year's Questions

Q. Delusion is disorder of?
A. Content of thought
B. Form of thought
C. Flow of thought
D. Possession of thought

- There are three steps to diagnose delusions

1. False belief
2. Firm, Fixed and unshakeable (belief continues despite evidence against it)
3. Unexplained by social, cultural background

- Case 1: Patient says, "I look better than Ranbir Kapoor" (False belief)

1. Psychiatrist now bring a mirror and a photograph of Ranbir Kapoor and ask him to compare
   - Evidence was given to break the false belief
2. Patient again says: Yes, I look better than Ranbir Kapoor (Patient refused the evidence)-
   - Firm, Fixed and unshakeable.
   - Can we call it delusion at this step?
     → No, because he might belong to a village where people actually think that the patient is better than Ranbir Kapoor.
3. So, in the third step we check whether the belief of patient can be explained by his background. In third step we go to his village and bring two-three villagers and ask them does the patient looks better than Ranbir Kapoor. If villagers say Ranbir Kapoor is better but the patient denies it.
   - Yes, Now is it a delusion.
   - Unexplained by social, cultural background

- Case 2: Patient comes from tribal area and says: I have developed Tuberculosis because somebody did black magic on me.
  - It is not labelled as delusion
    → Because it is possible that the patient where he belongs to believe in black magic can cause illness
    → Since it is explained by social and cultural background so it is not a delusion it is considered as Superstition.

Types of Delusion 01:12:18

1. Delusion of Persecution

- In Delusion of Persecution patient believes that "Someone wants to harm him"
- Example
  - Patient says: The police are following me, the intelligence agency is after me, My neighbors are trying to hatch a conspiracy against me, My family members want to kill me and take away my property etc.

Important Information

- **Most common delusion overall: Delusion of Persecution**
- **Most common delusion in Schizophrenia: Delusion of Persecution**

2. Delusion of reference

- Patient believes that neutral stimuli are somehow related to him/her
- Example
  - Patient says: Doctor the tube light in your room has a camera fitted which is recording me.
  - Patient is walking down the road; he sees two people talking and says that they are talking about me
  - Patient sees someone smiling and says: that she is laughing at me

3. Delusion of grandeur / grandiosity

- Patient believes that he has some special power/ role / identity
- For E.g., Patient says
  - I am so powerful that I can push train with my bare hands.
  - I have been sent by God to spread peace and humanity

- I am the reincarnation God
- Delusion of grandeur / grandiosity is seen in Mania and Schizophrenia.

4. Delusion of love (Erotomania/De Clerembault syndrome/Fantasy lover syndrome)

- Patient believes that someone from higher socioeconomic class is in love with him/her Patient
- Example
  - Katrina kaif broke up with Ranbir Kapoor because she is in love with me
  - Doctor: Have you met her
  - Patient: No, But I know she loves me
  - Doctor: How do you know it
  - Patient: She sends love letter to me
  - Doctor: Have you received any letters
  - Patient: No, I haven't received any letter because when she sends letter, Ranbir Kapoor intercept those letters and never allows those letters to reach me but she loves me.

5. Delusion of infidelity (Morbid jealous/Pathological jealousy/Othello syndrome)

- Seen in patient with alcohol dependence
- Patient says: My girlfriend is cheating on me, My wife is cheating on me, My husband is cheating on me etc.

6. Delusion of guilt

- Patient feels guilty and the guilt is at the delusion level.
- Even if you try to convince the patient, he doesn't accept it
- Case:
  - Patient came to OPD with history of depression and she also said that she has been a mad mother. But her children denied and said that she was a wonderful mother and all of them are well settled and from past 4-5 months she is saying these things a lot that she is a bad mother.
  - Diagnosis: Delusion of guilt
    → Usually seen in patient with severe depression

7. Nihilistic delusion (Delusion of Negation/Cotard syndrome)

- Patient may deny existence of their body, their mind or world in general.
- Term Nihilism means nil
- Patient says: Things have ended, Everybody is dead in the world, The wind has stopped blowing, Earth has stopped rotating, All my internal organs are rotten etc.
- Usually seen in patient with depression.

8. Delusion of enormity

- Patients believe that their action will cause a Catastrophe.
- Sometimes the patient with delusion of negation also develops Delusion of enormity
- For e.g.: Patient says:
- I cannot urinate, because if I urinate there will be floods all around the world, If I sneeze the world will blow away etc.

9. Delusion of misidentification (Misidentification syndrome)-

- Doubt is on the identity of individual
- Presented in four ways
  I. Capgras syndrome
  II. Fregoli syndrome
  III. Syndrome of Subjective Doubles
  IV. Syndrome of Inter-Metamorphosis

I. Capgras syndrome (Delusion of Doubles)

- Patient believes that a familiar person has been replaced by a similar looking stranger
- Example
  - Patient goes back home, he enters his drawing room where his wife is sitting. Wife looks like as she always looked like. Patient does not find any difference in her physical appearance but the patient has a thought this woman sitting in my drawing room looks like my wife is not really my wife, is some other women who has managed somehow to like my wife.
  - In this case the patient has history of fight with his wife
  - He asks his wife: Who are you, how did you enter my house, how do you look exactly like my wife, where is my real wife
  - All these are suggestive of Capgras Syndrome.
- Patient of Capgras syndrome fights with a familiar person/friend/family members.

II. Fregoli syndrome 01:22:26

- Kind of opposite to what happens in Capgras syndrome
- Patient believes that a familiar person is changing his physical appearance and disguising as a stranger and that multiple different appearance can be taken
- Example
  - Patient has a belief that his wife wants to kill him and he also believes that wife also follows him wherever he goes.
  - Patient believes that whenever he goes out his wife follows him, since he can identify her so she changes her physical appearance while following him
  - Wife changes her face as a complete stranger while following him so that husband is not able to identify

her.
  - Patient also believe that wife not only changes one face rather she can change multiple different appearances.
  - Patient of Fregoli syndrome fights with strangers.

III. Syndrome of Subjective Doubles

- Patient believes that he has many doubles who are living their own separate lives.
- For e.g.: The patient believes that there are many persons like me who are living their own life in different cities.

IV. Syndrome of Inter-Metamorphosis

- Patient believes that people can undergo changes in both physical and psychological identity and become an entirely different person

- For e.g:
  - Individual A: Has face and different psychological identity
  - He changes his face and psychological identity and converts into Individual B.
  - Individual B: Has a different face and totally different identity.

Bizarre Vs Non-Bizarre delusions

- Bizarre delusion
  - Scientifically impossible and culturally implausible (Un-understandable)
  - For e.g.: Patient says:
    - → Yesterday in the evening, three aliens came from Mars, they stole my heart and replaced it with a chip and went away. This is case of delusion because it is not possible. This is scientifically impossible and un-understandable.

- Non-Bizarre delusions
  - False but possible
  - For e.g.: Patient says
    - → My neighbors are planning a conspiracy against me and want to kill me.
    - → In this case even if it is established as delusion the belief that the neighbor wants to kill me is possible.

- The concept of bizarre and non-bizarre delusions is now no longer used in current classification. Because of lack of objectivity (Bizarre delusion for someone can be Non-Bizarre for a different person)

Previous Year's Questions

Q. What is the diagnosis?

A. Capgras syndrome
B. Fregoli syndrome
C. Othello syndrome
D. Cotard syndrome

Previous Year's Questions

A 21-year-old girl principal is suspects that the college principal is making a conspiracy against her and is planning to fail her in the upcoming exam. She feels that other teacher has also joined the conspiracy and students are helping them too? What is the diagnosis?

(FMGE Aug 2020)

A. Delusion of persecution
B. Delusion of reference
C. Delusion of infidelity
D. Othello Syndrome

Previous Year's Questions

A patient believes he is the most important person in the world than anyone so his neighbours and family is trying to harm him as they are jealous of him. His wife says otherwise and he behaves like this recently only before he was working as a school teacher peacefully and brought to OPD. He is suffering from?

(AIIMS - Nov - 2017)

A. Delusion of grandiosity
B. Delusion of persecution
C. Delusion of grandiosity & persecution
D. Delusion of grandiosity, persecution & reference

4. POSSESSION OF THOUGHT

01:29:06

- Normally when we think we have an experience that whatever is going in my mind belongs to me.
- I am in sole possession of my thought.
- External person has no control over my thinking. External person cannot interfere with my thoughts.
- External person doesn't know what I am thinking about.

Abnormalities of Possessions

- Thought allientation
  - Patient feels that others can interfere with my thought process
  - My thoughts are no longer under my control.
  - Thought insertion
    - → Patient says: Doctor, something weird is happening with me. I was sitting in my home; I was in my room. I was thinking about cricket and suddenly a very weird thought came into my mind and it was not my thought. My neighbor was using some kind of technology to implant thoughts into my mind.
    - → In this case the patient is experiencing that others are putting thoughts in my mind. This is a disorder of possession of thoughts.
- Thought withdrawal
  - Patient says: Doctor, yesterday I was sitting in my room and suddenly my mind went completely blank, I couldn't think of anything because my neighbor was using some technology to steal away my thoughts. He was withdrawing thoughts from my mind and my mind went blank.
- Thought broadcast
  - Patient says: Doctor, I was sitting in my home thinking about cricket and then I went outside and what I saw was my wife was standing outside my door with bag a ball in her hand. Doctor she knew what I was thinking about because my thoughts are leaving my head and others can catch them. My thoughts are getting broadcasted.
- Obsessions
  - In this patient has same thoughts repetitively.
  - Eg is: My Hands are unclean. This thought comes to mind repetitively despite trying to stop it. Since this thought is not under control so obsessions are characterized under disturbance of thought possessions.
  - According to Fish's Psychopathology: Obsessions are disorder of possession of thoughts.
  - According to Kaplan & Sadock's Comprehensive Textbook of Psychiatry: Obsessions are disorders of content of thoughts. Kaplan & Sadock's say there are two types of thought disturbances
  - Thought content and Thought Process.

Important Information

Q. Obsessions are disorders of?
A. Flow of Thoughts
B. Form of Thoughts
C. Content of Thoughts
D. Possession of Thoughts
Ans D. Possession of Thoughts

- The four options suggest that the examiner is following Fish's Psychopathology. (Kaplan and Sadock does not mention anything about Flow and Possession of Thoughts)

Previous Year's Questions

A 40-year-old male patient, comes to psychiatry OPD with complains of having repetitive thought that, he always feels his own thought only. This gives him discomfort and hence he has to wash them again and again. This is disorder of thought?

(INICET Nov 2020)

A. Flow
B. Form
C. Content
D. Possession

01:34:30

E. HIGHER MENTAL FUNCTION

Attention

- Defined as ability to attend to a specific stimulus without getting distracted.
- If you are listening to a lecture multiple things might be happening in your room like other students, sound of fan, noise of air conditioner etc. but you are not giving importance to other unnecessary stimuli and you are focused only on the lecture. This signifies attention
- Test of attention
  - By Digit Span test / Digit Repetition test
    - → In this test the patient has to repeat the digits which Doctor will say.
    - → For e.g.:
    - Doctor: Three, Seven

- Patient: Three, Seven
- Doctor: Three, Six, Eight
- Patient: Three, Six, Eight
- Doctor: Two, Seven, Five, Four
- Patient: Two, Seven, Five, Four
- Doctor: Two, Eight, Five, Three, Nine
- If Patient says: Two, Eight, Five, Three, nine, Attention is Normal

→ If patient is able to repeat five digits, then his attention is considered as Normal

- Digit Backward Test: Variation of Digit Span test / Digit Repetition test

→ Digit Forward test is preferred more over Digit Backward Test

→ Standard textbook says Digit backward involves more mental ability than Digit forward.

→ For e.g.:

- Doctor: Two, Five
- Patient: Five, Two
- Doctor: Two, Eight, Six
- Patient: Six, Eight, Two

Concentration

- It is ability to sustain attention
- For e.g.: If you are able to listen to this lecture attentively for 30 minutes with proper concentration.
- Test to check concentration: Serial 7 subtraction
  - Doctor: Subtract serially 7 from hundred (At least five times)
  - Patient: 93, 86, 79, 72, 65

Memory

- Three different types of memory are tested.
  - Immediate memory/Working memory
    - → For interval of seconds.
    - → Use digit repetition test or serial seven subtraction test.
  - Recent memory
    - → For minutes, hours or days.
    - → Use 24-hour recall method.
    - → For e.g.: Calorie intake in 24 hours/What all did you eat in last 24 hrs.)
  - Remote memory
    - → For years, ask both personal information and historical events.
    - → For e.g.: Which school did you go to? When did India win the world cup? When did Sachin Tendulkar retire?
    - → Things that happened 30 year back constitutes the remote memory and in dementia the remote memory is lost in the last

Important Information

- **Recent memory is lost first in dementia.**

Intelligence

- General information and Calculation skills
- For e.g.: Name five cities of India? Name three rivers of India? Questions on Calculation skills? etc.

Abstract thinking

- Higher level of thinking.
- Ability to form concepts and generalization
- For e.g.:
  - First time on playing video game the character died after touching the red spot Second time on playing video game the character died after touching the red spot Third time on playing video game the character jumps after seeing the red spot
  - In this case the person develops concept that the red spot should be avoided. This is abstract thinking.
- Tests of Abstract thinking:
  - Proverb testing
    - → Doctor asks meaning of Proverb Doctor: "Stitch in time saves nine"
    - → If patient says: If you take action at right time, you are able to avoid bad consequences later; Abstract thinking is present
    - → Doctor asks: What is the similarities between chair and table
    - → If patient says: Both are pieces of furniture; Abstract thinking is present
    - → If patient says: Both are lying on the ground/Both are made of wood; Abstract thinking absent, This is called as concrete thinking.

Judgement 01:43:50

- Ability to take right decision according to situation.
- Three different type of judgement are:

1. Test judgment
   - In this the doctor gives the patient a test scenario and based on his response his judgment is tested.
   - For e.g.: Doctor asks, "What will you do if you see a house on fire"?
   - If patient says: Call the fire brigade; Test judgement Intact
   - If patient says: I will try to throw water on it if fire is less; Test judgement is intact
   - If patient says: I will jump into the fire; Test judgement is impaired
2. Personal judgment

- Whether the patient can take right decisions for his life or not.
- For e.g.: Patient is admitted in the ward and Doctor asks him: Doctor: After going out from hospital, what will you do?
- If patient says: I will try to find a job, I will try to make money for my family and I will come to hospital every month to meet my doctor; Personal Judgement Intact.
- If patient says: After my discharge I will find the CBI agent who conspired with the police and got me admitted into the hospital and I will take my revenge with help of America agency; Personal Judgement not intact.

3. Social judgment
   - It is tested based more on observation rather than questioning.
   - We observe whether the patient is behaving socially appropriate manner with the staff, nurses, doctors.

Insight 01:46:36

- It is defined as awareness of illness.
- For e.g.: I have diabetes,
  - I go to the doctor take my medicine and I maintain a regular lifestyle when I am aware I have illness: Insight is present
  - If he refuses to accept that he has disease: Insight is absent
- Levels of insight
  - Grade-1
    - → Complete denial of illness
    - → For E.g.: Patient completely refuses his disease
  - Grade-2
    - → Awareness of being sick but denying at the same time
    - → For e.g.: Doctor asks: Do you have disease?
    - → Patient: Yes doctor, sometimes the sleep is problematic but no I am fine
  - Grade-3
    - → Aware of being sick but attributing symptoms to external or physical factors.
    - → Patient: Yes, I am hearing some voices and I am not able to sleep but it's not an illness, somebody has done black magic on me that's why these illnesses is happening to me.
  - Grade-4
    - → Intellectual insight
    - → Patient accepts he has illness but he does not change behavior according to it.
    - → Doctor: Do you have any Schizophrenia?
    - → Patient: Yes, I have schizophrenia. (But he refuses to go to doctor or take medication). The patient continues to take cannabis despite being told not to do it.
  - Grade-5
    - → Emotional insight
    - → Highest level of insight
    - → Doctor: Do you have any Schizophrenia?

Previous Year's Questions

Q. In which of the following situations, the person does not have insight?

(AIIMS May 2019)

A. Slight awareness of being sick and needing help but denying it - at the same time.
B. Awareness of being sick but blaming it on events others on externa on medical or unknown organic organic factors.
C. Complete denial of illness
D. Admission of illness without applying that knowledge to future experiences.

CLASSIFICATION OF PSYCHIATRIC DISORDER 01:50:06

- Organic Vs Functional Mental Disorders

Organic Mental disorders	Functional Mental disorders
• Originates from disturbances of brain	• Originates from disturbance from mind
• Can be demonstrated	• Cannot demonstrate anything in the brain.
• For e.g.: MRI of patient with history of dementia shows: Grey matter is thinned out; ventricles have become dilated.	• For e.g.: In schizophrenia if you do the MRI- It is Normal.

Important Information

- **Now we know even so called Functional mental disorders like schizophrenia is also caused by brain (Neurotransmitter level).**
- **Findings are seen in advance study like Functional MRI.**

- **Psychosis vs Neuroses**

	Psychoses	Neuroses
Insight	Absent	Present
Delusions/Hallucinations	Present	Absent
Reality testing	Absent	Present

Important Information

- **Sometimes in patient with schizophrenia may have insight**
- **Even in patient with depression can refuse to take medication and does not accept that he has problem**

- Better way of classification is on basis of symptoms.
  - For e.g.: If delusion and hallucination is present it is called as Psychosis.
  - For e.g.: If delusion and hallucination are absent it is called as Neurosis.
- Reality testing
  - Means whether the patient is living in a real world or imaginary world created by him based on his own experiences.
  - For E.g.: Patient has delusion that he is having hallucination and because of that he start believing that he is a really important person who has made a big scientific discovery and all the governments of the world are after him and so he has to try to hide in my house.

    → In this case patient is not living in a real world, he is living in a imaginary world created by him based on delusion and hallucination.

Classification system

- For making the diagnosis we can follow one or two major classification systems
- DSM-5
  - Diagnostic and statistical manual of mental disorders
  - Released by American psychiatric association
- ICD-11
  - International classification of diseases
  - Released by WHO
  - ICD-11 was presented at the world health assembly in May 2019
  - Adoption by member states will come into effect on 1 January 2022
  - As per exams we will follow both ICD-10 and ICD-11

Previous Year's Questions

Q. National institute of mental health (NIMH, USA) uses which of the following to classify the behavioral disorders?

(NIMHANS 2019)

A. ICD-11
B. ICD-10
C. DSM-5
D. Research domain criterion (RDoC)

CLINICAL QUESTIONS

Q. A young patient with acute psychosis was admitted to the hospital. He wakes up and asks for his wife, who is in the same room and location as him. When he saw her, he began hitting her, believing she was his wife disguised as a nurse. He also said she was the same nurse who had given him incorrect medication two days prior and now intends to damage him once more. What is this likely diagnosis?

A. Capgras syndrome
B. Fregoli syndrome
C. Delusion of subjective doubles
D. Othello syndrome

Answer: A

Solution

- **Capgras syndrome** – Belief that a familiar person has been replaced by stranger
- **Fregoli syndrome** – Familiar person is imposing as a stranger and can take multiple different appearance
- **Delusion of subjective doubles**- Patient believes that there is multiple double of him/her living their own life
- **Othello syndrome** – Pathological jealousy or morbid jealousy that arise from multiple concerns. It is seen in heavy alcohol use**HOW TO REMEMBER:** Fregoli thinks that everyone is Friendly (strangers as someone known to him. 1 person but many faces). Opposite is true for Çapgras. Capgras patients often attack health care workers as patient thinks that someone unknown to him has come under disguise of someone known to him)

Reference: Kaplan and sadocks synopsis of psychiatry edition 11 page 335-336

Q. A patient with schizophrenia is convinced that she has caused a recent earthquake because she was bored and wishing for something exciting to occur. Which of the following symptoms describes this patient's thoughts?

A. Thought broadcasting
B. Magical thinking
C. Echolalia
D. Nihilism

Answer: B

Solution

- Magical thinking is a form of thinking in which thoughts and ideas are believed to have special powers (e.g., to cause or stop outside events)

- Thought broadcast is a disorder of possession of thought in which patient feels that his thoughts are being broadcasted in outer world and everyone knows what he feels.
- Echolalia is defined as meaningless repetition of others spoken words
- Nihilism means nil. In this patient believes that everything is going to end and may deny existence of his mind, body and the world in general. e.g., my internal organs are rotten.

Reference:

Kaplan & Sadock's Synopsis of Psychiatry, 11th edition, Page No 421

LEARNING OBJECTIVES

Schizophrenia & Related Disorders

- History
  - 11 Schneiderian first rank symptoms
- Epidemiology
- Aetiology & pathogenesis
- Various types of symptoms
  - Positive, negative, disorganization and motor symptoms
- Diagnosis and duration of illness
- Types of schizophrenia
- Treatment
  - Duration of treatment
  - Typical antipsychotics
    - → Extrapyramidal side effects
    - → Endocrine side effects
    - → Sedation
    - → Anticholinergic side effects
  - Atypical antipsychotics
- Long-acting injectable antipsychotics
  - Z track technique
- Psychosocial treatment
- Prognosis
- Other psychotic disorders
  - Acute psychotic disorders
  - Schizoaffective disorder
  - Delusional disorder
  - Shared delusional disorder (induced delusional disorder

2 SCHIZOPHRENIA SPECTRUM & RELATED DISORDERS

- Schizophrenia is prototype psychotic disorder

HISTORY

Emil Kraepelin

- 1st person to classify psychotic disorders
- Classified according to course of illness

	Continuous illness	Episodic illness
	• Remain ill for rest of their life	• Recover after illness
Cognitive decline	• Gradual and progressive cognitive decline	• No cognitive decline
Course	• Chronic and deteriorating	• Episodic
Clinical features	• Delusions & hallucinations	• Episodes of mania & depression
Diagnosis	Dementia praecox (Early onset) ↓ Schizophrenia	Manic depressive psychosis ↓ Bipolar disorder

Eugen Bleuler ⏱ 00:04:35

- Coined the term 'schizophrenia'
  - Term 'Schizophrenia' replaced the term "Dementia praecox"
- Proposed fundamental (Primary) symptoms of schizophrenia
- 4 A's of Bleuler
  1. **A**utistic thinking & behavior (Autism)
     → Fantasy thinking
     → Delusion of grandeur
     → Withdrawn behavior
  2. **A**mbivalence
     → Inability to decide
  3. **A**ffect disturbances
     → Disturbances in emotions
  4. **A**ssociation disturbances
     → Formal thought disorders)

Kurt Schneider ⏱ 00:08:32

- 11 Schneiderian First Rank Symptoms (SFRS)
- Characteristic but not exclusive/ Pathognomic of schizophrenia
- 3 thought phenomenon
  - Thought insertion
  - Thought withdrawal
  - Thought broadcast
- 3 made phenomenon
  - Made volition
    → Someone is controlling the actions
  - Made affect
    → Someone is controlling the emotions
  - Made impulse
    → Someone is controlling the impulses

Important Information

- **Concept of 'passivity- Passivity experiences are those in which patient experiences that his thoughts, emotions, actions or sensations are controlled/influenced by others.**

- 3 auditory hallucinations
  - Third person auditory hallucinations
    → Voices arguing or discussing about patient
  - Voices giving running commentary about patient's action, thoughts
  - Thought echo
    → Voices saying thoughts aloud
    → known as Gedankenlautwerden in German and
    → Echo de pensées in French.
- Delusional perception
  - Delusion is attached to a normal perception in an un-understandable manner.
  - Type of Primary delusion
  - E.g. attaching delusion of grandiosity to color of remote which in reality have no connection.
  - It is a disorder of content of thought
- Somatic passivity
  - Patient experiences somatic sensations & blames an ext. agency for the same
  - E.g.: Patient feels tingling sensations in hands and blames another country that they are throwing radio

waves at him.

- Primary delusion
  - Direct result of underlying disorder.
- Secondary delusion
  - Develop secondarily to some other symptom.
  - E.g.: Patient developing delusion of persecution secondary to auditory hallucinations.

Previous Year's Questions

Q. Which of the following is a first rank symptom of in Schizophrenia?

(JIPMER Nov 2018)
(JIPMER Dec 2019)

A. Delusion
B. Thought insertion
C. Hallucination
D. Word salad

EPIDEMIOLOGY

00:23:30

- Lifetime prevalence: 1%
- Point prevalence: 0.5-1%
- Incidence rate: 0.15-0.25 per thousand

Prevalence in specific groups

One parent with schizophrenia	12%
Both parents with schizophrenia	40%
Non twin sibling of a patient with Schizophrenia	8%
Dizygotic twin of patient with schizophrenia	12%
Monozygotic twin of a patient with schizophrenia	47%

Risk Factors

- Age of onset
  - Adolescence & young adulthood
  - Late onset: >45 years
- Sex ratio
  - M: F 1.1:1 (According recent studies)
  - Late onset in females & have better prognosis
- More prevalent in lower socio-economic status
- More common in singles, divorced rather than married

Important Information

- Asthenic (Thin and weak): more susceptible to schizophrenia
- Pyknic (Short & fat): more susceptible to develop bipolar disorder

00:28:20

ETIOLOGY & PATHOGENESIS

1. **Neurotransmitter hypothesis**
- Dopamine hypothesis
  - Excessive levels of dopamine lead to schizophrenia
- Dopamine and serotonin hypothesis
  - Excessive levels of dopamine & serotonin lead to schizophrenia
- GABA, glutamate, ACh, NE are also implicated.

2. **Genetic factors**
- Higher monozygotic concordance rate than dizygotic concordance rate
- Increased risk in family members of patients, and even family members of patients with bipolar disorder
- DiGeorge syndrome (22q11.2 deletion, velocardiofacial syndrome)
  - 30% have schizophrenia when reaches adulthood
- Candidate genes
  - DISC 1 (Disrupted in schizophrenia)
  - COMT (Catechol-o-methyl transferase)

3. **Neuropathological factors**
- Cerebral ventricles
  - Reduction in cortical grey matter volume
  - Enlargement of ventricles (Lateral and third)
- Limbic system
  - Structural (Smaller size) and functional abnormality in hippo campus and amygdala
  - Abnormalities in prefrontal cortex, thalamus, basal ganglia and cerebellum.

4. **Environmental factors**
- Obstetric complications and developmental complications
- Stressful life events: Childhood trauma, stressful life events as precipitating factors
- Birth in winters and early spring, prenatal exposure to influenza virus and malnutrition
- Advanced paternal age
- Immigrants (Especially second generation)
- Drug abuse: cannabis
- Urban birth and upbringing

Previous Year's Questions

Q. Lobe atrophied in chronic schizophrenia?
A. Frontal lobe
B. Occipital lobe
C. Parietal lobe
D. Temporal lobe

Ans.
- Controversial
- Both Temporal and frontal lobe
- Temporal lobe >> frontal lobe

00:39:38

SYMPTOMS

A. Positive symptoms (Or psychotic symptoms)
- Delusions
  - M/C is delusion of persecution
- Hallucinations
  - M/C is auditory hallucinations
  - 2nd M/C is visual

Important Information

- **If visual hallucinations are present, rule out organic brain disorder.**

- Both these positive symptoms respond well to medications
  - Hallucinations are first to respond to respond to medication.
- Good prognostic factor
- Dopamine excess in mesolimbic tract (Ventral tegmental area to nucleus accumbens) leads to positive symptoms.

B. Negative symptoms
- A - Avolition
  - Loss of drive for goal directed activities
- A - Apathy
  - Lack of concern
- A - Anhedonia
  - Lack of pleasure in previously pleasurable activities
- A- Asociality
  - Lack of social interaction
- A - Affective flattening (Or emotional blunting)
- A - Alogia
  - Decreased verbal communication
- Respond poorly to medications
- Poor prognostic factor
- Decreased dopamine in mesocortical tract (Ventral tegmental area to prefrontal cortex)

How to remember

- 6 'A's

Previous Year's Questions

Q. Which of the following Schizophrenic patient has bad prognosis?
A. Patient with delusion of persecution
B. Patient with third person auditory hallucinations
C. Patient who is violent
D. Patient who has stopped all the activities

C. Disorganization symptoms
- Disorganized behavior
  - Odd & socially inappropriate behavior
- Disorganized speech and thinking
  - Formal Thought Disorder
- Inappropriate affect

D. Motor symptoms (Ctatonic symptoms/symptoms of conation)
- Coined by 'Karl Kahlbaum'
- Stupor
  - Akinesis: Immobility (Hypoactivity)
  - Mutism: minimal responsiveness
- Excitement
  - Non goal directed
- Posturing
  - Maintenance of a posture for long period of time
- Catalepsy
- Waxy flexibility
  - During passive movement patient appears as flexible as wax candle
- Automatic obedience
  - Extreme cooperativeness despite unpleasant consequences
- Negativism
  - Purposeless refusal to follow the commands
  - Passive negativism
    → Do not follow command
  - Active negativism
    → Does opposite of command
- Echolalia
  - Repetition of speech
- Echopraxia

- Repetition of behavior
- Grimacing
  - Maintenance of odd facial expressions
- Gagenhalten
  - Resistance offered by patient
  - Equal and opposite to force applied
- Ambitendency
  - Inability to decide motor movements
- Stereotypy
  - Spontaneous, repetition of odd purposeless movements
- Mannerisms
  - Spontaneous repetition of semi-purposeful movements
  - Done in an exaggerated manner
- Perseveration
  - Induced movement, repeated beyond point of relevance.
  - It is suggestive of organic brain disorder

Important Information

There are two types of perseveration
- Logoclonia: Last syllable of last word is repeated.
  - E.g. Today is Tuesday-ay-ay-ay
- Palilalia- Patients repeats perseverated word with increasing frequency.

Previous Year's Questions

Q. What is this sign in schizophrenia?

A. Stupor
B. Posturing
C. Ambitendency
D. Negativism

E. Suicide and violence 01:00:45
- 10% Patients
  - DSM-5: 5-6%
  - 20% attempt
- M/C cause of premature & unnatural death
- Risk factors
  - Presence of a major depressive episode
  - Increased symptoms (Command hallucinations, delusion of persecution)
  - Early in course of illness, immediately after admission or discharge
  - Young males, comorbid substance abuse, unemployed
  - At times paradoxical (Fewer negative symptoms, less affect disturbances)

DIAGNOSIS
- Acc to DSM-5 01:04:49
  - Delusions
  - Hallucinations
  - Disorganised speech (or FTD)
  - Disorganized or catatonic behaviour
  - Negative symptoms
  - 2 out of these 5 and at least 1 out of the first 3, present for 1 month
  - Duration of illness
    - → At least 6 months
    - → At least 1 out of the first 3 symptoms are present for atleast1 month
    - → For rest 5 months abnormal behavior/ other symptoms are seen
- ICD-11: At least 1-month duration
- DSM-4
  - Significance of bizarre delusion, or auditory hallucination (SFRS type)

Types of Schizophrenia (ICD-10)
- Paranoid schizophrenia 01:10:00
  - Predominant positive symptoms
  - Most common
  - Late onset
  - Good prognosis
  - Personality preserved
    - → Daily activities & social interaction are normal
- Catatonic schizophrenia
  - Motor symptoms
  - Best prognosis

Important Information

- All type of schizophrenia is treated with anti-psychotics except Catatonic schizophrenia which is treated with I.V. lorazepam & electroconvulsive therapy

- Hebephrenic (Disorganized) schizophrenia
  - Disorganization & negative symptoms
  - Early onset
  - Bad prognosis
  - Severe deterioration of personality
    → Basic hygiene, basic social interaction disturbed)
- Simple schizophrenia
  - Prominent negative symptoms
  - Lack of positive symptoms
  - Worst prognosis
    → Simple schizophrenia >> Hebephrenic (Disorganized) schizophrenia
- Residual schizophrenia
  - State with minimum delusions/hallucinations
  - Mostly negative symptoms
- Post schizophrenic depression
  - Increased risk of suicide

Important Information

- Both DSM-5 & ICD-11 have removed these symptom-based types instead, both have used course specifiers

Types of schizophrenia according to ICD-11
- Schizophrenia, first episode
- Schizophrenia, multiple episodes
- Schizophrenia continuous (>1 yr.)

ICD-11, Catatonia, a separate diagnosis
- Catatonia associated with a mental disorder
- Catatonia induced by use of psychoactive substances and medications

Previous Year's Questions

Q. A psychotic patient presented with purposeless movements & was once observed to stand still in the ward for long periods of time. On examination he had negativism and waxy flexibility. What is the appropriate medical management for this patient? (INICET 2020)

A. Haloperidol
B. Clonidine
C. Propranolol
D. Lorazepam

TREATMENT

1st line drugs
- Anti-psychotics except for catatonic Schizophrenia
- Antipsychotics/ Neuroleptics: Two types
  - Typical / FGA / DRA
    → FGA: First generation antipsychotics
    → DRA: Dopamine receptor antagonist
  - Atypical / S.G.A / SDA
    → SGA: Second generation antipsychotics
    → SDA: Serotonin dopamine antagonist

Miscellaneous points
- TJ crow classified schizophrenia into two types
  - Most pt. have mixture of both

	Type I Prominent positive symptoms	Type II Prominent negative symptoms
Onset & neuroleptic response	• Acute good response	• Gradual Poor Response
Etiology	• Dopamine over activities	• Structural changes • (Enlarged cerebral ventricles)

Miscellaneous points
- Pfropf schizophrenia
  - Schizophrenia in a patient with mental retardation
- Van Gogh syndrome
  - Self-mutilation in a patient with schizophrenia.
- Substances causing schizophrenia like symptoms
  - Phencyclidine, Amphetamines, cocaine, other hallucinogens, cannabis.

Duration of treatment
- First episode: 1 to 2 years (2 years)
- Multiple episodes: 5 year or more

	Typical or First generation antipsychotic	Atypical or second generation antipsychotic
Mechanism	D2 Antagonism	D2 and 5HT2 antagonism
Effective against	Positive symptoms	Positive and negative symptoms

Extrapyramidal side effects and hyperprolactinemia	More	Less
Hyperprolactinemia	More	Less
Metabolic side effect	Less	More

01:35:46

TYPICAL ANTIPSYCHOTICS

First generation antipsychotics (FGA) /dopamine receptor antagonists (DRA)

- Phenothiazines
  - Chlorpromazine, trifluoperazine, thioridazine, prochlorperazine, triflupromazine, fluphenazine, perphenazine etc.
- Thioxanthenes
  - Thiothixene, flupenthixol etc.
- Butyrophenones
  - Haloperidol, droperidol, penfluridol etc.
- Miscellaneous
  - Pimozide, loxapine, molindone etc.
- Low potency
  - Chlorpromazine
  - Thioridazine
- High potency
  - Haloperidol
  - Fluphenazine

Side effects 01:38:40

A. Movement disorders

- Extrapyramidal side effects
- Blockade of nigrostriatal tract (Neural pathway from substantial nigra to striatum)
- Typical> atypical
- High potency> low potency
- Parenteral administration> oral administration

Extrapyramidal side effects

- Drug induced parkinsonism
  - Tremors (3-6 Hz)
  - Rigidity
  - Bradykinesia
  - Treatment
    - → Use of anticholinergics (E.g. trihexyphenidyl, diphenhydramine etc)
    - → Shift to SGA (Second generation antipsychotics)
- Acute dystonia
  - Earliest side effect
  - Seen in Young male
  - Trismus, torticollis, oculogyric crisis, laryngeal dystonia
  - Treatment
    - → Parenteral anticholinergics
    - → Prophylaxis with anticholinergics
- Acute akathisia
  - Most common
  - Inner sense of restlessness & objective signs such as fidgeting of legs, pacing around, inability to sit or stand for long
  - Treatment
    - → Beta blockers like propranolol (DOC)
    - → Anticholinergics, benzodiazepines can also be used.
- Tardive dyskinesia
  - The term Tardive means long term and dyskinesia means abnormal movements.
  - Involuntary movements of jaw (Chewing movements), lips (Puckering, smacking), tongue (protrusion, twisting), or extremities
  - Patients may present with choreiform (Rapid, jerky, nonrepetitive) or athetoid movements (Slow, continuous or and sinuous)
  - Rabbit syndrome
    - → Rhythmic motions of the mouth
    - → Along a vertical plane
    - → without involvement of the tongue
  - Sustained D2 blockade resulting in hypersensitivity
  - Treatment
    - → Shift to second generation antipsychotics
    - → Use of Valbenazine, Tetrabenazine (Dopamine Depleters)
- Neuroleptic malignant syndrome
  - Fever
  - Rigidity
  - Increase CPK (Creatine phosphokinase levels)
  - Autonomic disturbances
  - Diaphoresis
  - Altered consciousness
  - Tremors
  - Leukocytosis
  - Liver enzymes elevation
  - Pathophysiology: D2 blockade
    - → Corpus striatum- Muscle rigidity
    - → Hypothalamus: Thermoregulation disturbed- Fever
    - → Spinal neurons- Autonomic disturbances
    - → Increase CPK levels due to muscle rigidity
    - → Myoglobinuria, renal failure
  - Treatment
    - → Withdraw antipsychotic, hydration
    - → DOC- Dantrolene

→ Dopamine agonists: amantadine, bromocriptine
→ Restarting of antipsychotics: Keep the patient antipsychotic free for 2 weeks then start with second generation antipsychotics.

B. Endocrine side effects
- Hyperprolactinemia due to Tuberoinfundibular tract involvement
- Galactorrhea, menstrual disturbances in females
- Sexual dysfunction, low libido in males

C. Sedation

D. Anticholinergic side effects
- Dry mouth
- orthostatic hypotension
  → Also due to Blockade of alpha-adrenergic receptors
- More so with low potency drugs

ATYPICAL ANTIPSYCHOTICS 01:54:22

- Serotonin dopamine antagonists
- Both D2 and 5HT-2 blockade
- Clozapine, olanzapine
- Risperidone, paliperidone, iloperidone
- Quetiapine, ziprasidone, aripiprazole
- Sertindole, zotepine, lurasidone
- Asenapine, amisulpride
- Newer ones
  - Brexpiprazole, cariprazine, pimavanserin

Side effects
- Movement disorders
- Endocrine side effects
  - Lesser chances
  - Except risperidone and Amisulpride
- Metabolic side effects
- Sedation
- QTc prolongation
- Seizures

Clozapine 01:57:45
- DOC for TRS (Treatment resistant schizophrenia)
- More affinity for D4 receptors, less affinity for D2
- Hence, minimum EPS
- Antipsychotic with max weight gain

Important Information
- Clozapine is the only antipsychotic with antisuicide property

Important Information
- Treatment resistant schizophrenia
  - Lack of response to adequate dose of 2 antipsychotics (At least 1 atypical) for 4-6 weeks

- Side effects
  - Three life threatening side effects
    → Agranulocytosis
    → Myocarditis
    → Seizures (Dose dependent)
  - Sedation- M/C side effect
  - Sialorrhea
  - Syncope, hypotension, tachycardia, nausea, vomiting
  - Weight gain, anticholinergic side effects
- Clozapine monitoring
  - TLC and ANC
    → Once a week for first 6 months
    → Once in two weeks for next 6 months
    → Once a month till patient continues

Important Information
- Stop clozapine if WBC falls below 3000/dL or ANC falls below 1500/dL.

- Contraindications for clozapine use
  - WBC less than 3500/dL
  - History of agranulocytosis on clozapine
  - Use of other bone marrow suppressants such as carbamazepine

Previous Year's Questions
Q. Side effect of clozapine include?

(PGI Nov 2017)

A. Seizures
B. Sedation
C. or mouth
D. Hypothermia
E. Constipation

Miscellaneous points 02:07:11
- Long-acting injectable antipsychotics (Depot antipsychotics)
  - Poor compliance of patient
  - Intramuscular injection (Z track technique)

→ To prevent the drug to leak into the subcutaneous tissue
→ Pull the skin and tissue before giving injection and than release it
→ Makes a zig zag track and prevents leakage
- Flupenthixol, fluphenazine, haloperidol
- Pipotiazine, zuclopenthixol
- Risperidone, paliperidone, olanzapine, aripiprazole

- Thioridazine
  - Side effects
    → Irreversible retinal pigmentation
    → Cardiac arrhythmias (QTc prolongation)
    → Minimum EPS amongst typical
- Chlorpromazine
  - Side effects
    → Corneal & lenticular deposits
- Penfluridol
  - Longest acting antipsychotic
  - T1/2 = 66 hours
- Ziprasidone
  - Side effects
    → Cardiac arrhythmias
    → QTc prolongation
- Aripiprazole
  - Partial agonist at D2 receptors
  - Also Brexpiprazole, Cariprazine

Psychosocial treatment 02:14:21

- **F - Family interventions (Managing expressed emotions)**
- **A - Assertive community treatment- reaching out in community**
- **S - Supported employment**
- **T - Token economy**
- **S - Skills training**
- **C - Cognitive behavioral therapy**
- Cognitive remediation therapy (Or cognitive enhancement therapy)- for concentration, working memory etc.

How to remember

- FAST Supreme Court

PROGNOSIS 02:14:10

Good Prognosis	Bad Prognosis
Acute onset (<2 weeks)	Insidious onset (takes more than 3 months)
Advanced age at onset (>35 year)	Early onset (<20 year)
Catatonic, paranoid subtype	Simple, disorganized, hebephrenic
Female Sex	Male Sex
Prominent Positive Symptom	Prominent Negative symptom
Presence of affective symptom	Absence of affective symptoms
Family H/O mood disorder	Family H/O Schizophrenia

Previous Year's Questions

Q. All of the following are good prognostic factors in schizophrenia except?

(INICET 2020)

A. Late age of onset
B. Association with depression
C. Insidious onset of symptoms
D. Positive symptoms

OTHER PSYCHOTIC DISORDERS 02:24:53

1. ACUTE PSYCHOTIC DISORDERS

- Characteristics
  - Symptoms similar to schizophrenia (Delusions, hallucinations, disorganization)
  - Acute onset
  - Often preceded by stressor
    → Fever is a common stressor
  - Often resolve completely
  - Do not meet the duration criterion of schizophrenia
- ICD-11
  - < 1 month
  - Acute & transient psychotic disorder
- DSM-5
  - < 1 month
    → Brief psychotic disorder
  - Between 1-6 months
    → Schizophreniform disorder
- Treatment
  - Antipsychotics/benzodiazepines

2. SCHIZOAFFECTIVE DISORDER

- Symptoms of both Schizophrenia & a Mood disorder
- Schizoaffective disorder (Bipolar type or manic type)
  - Use combination of antipsychotics and mood stabilizers
- Schizoaffective disorder (Depressive type)
  - Use combination of antipsychotics and anti depressants

Previous Year's Questions

Q. A 37-year-old man reports that after suffering from Sudden financial loss. he developed certain symptoms. He started a Peeling fearful that someone is about to harm him and say that he could not sleep or eat properly. He also began to hear voices of female and that voice would abuse him and say that he was useless and should kill himself. His symptoms stopped approximately after week. There was no relevant a past h/o. drug abuse history or medical history? What is the likely diagnosis?

(FMGE Aug 2020)

A. Schizophreniform disorder.
B. Brief psychotic disorder
C. Schizo-affective disorder
D. Schizophrenia

3. DELUSIONAL DISORDER

02:30:46

- Single or set of related delusions
- Hallucinations
  - Usually absent
  - If hallucinations are present, they have Same content as of delusion
- Apart from the direct impact of delusions, the functioning is not markedly impaired

Types

- Persecutory
- Jealousy
- Erotomaniac
- Grandiose
- Delusion of Misidentification
- Somatic

Delusional parasitosis (Ekbom syndrome)

- Patient believes that they are infested with insects.
- Match Box sign present

Delusional dysmorphophobia

- Delusion about body appearance

Delusional halitosis

- Patient believes that bad odor is coming from his mouth

Risk factors for delusional disorders

- Advanced age
- Social isolation
- Sensory isolation
- Recent immigration
- Family history of delusional disorder
- Certain personality features (E.g., Excessive inter personal sensitivity)

Treatment

- Antipsychotics

Previous Year's Questions

Q. Which of the following is not true regarding delusional disorder?

(NEET Jan 2019)

A. Early immigration
B. Social isolation
C. Sensory impairment
D. Occurs at early age

4. SHARED DELUSIONAL DISORDER (INDUCED DELUSIONAL DISORDER)

02:39:55

- Primary case: Influential -Give antipsychotics
- Secondary case: Suggestible- Separate from the primary case
- Social isolation

Folie a Deux

- Two people involved

Folie a Trois

- Three people involved

Folie a Quatre

- Four people involved

MISCELLANEOUS

02:41:58

1. ATTENUATED PSYCHOSIS SYNDROME

- Patient having delusion hallucination or disorganised speech in attenuated (Less severe) form
- Insight is intact
- Reality testing is intact
- Example
  - Patient says I feel like I am a celebrity, and everybody is looking at me but at the same time I know I am not a celebrity
    - → Delusion of grandiosity is there but in an attenuated form
  - Patient hears voices but knows these are because of his illness
    - → Attenuated hallucination present

2. Z TRACK TECHNIQUE

- Intramuscular injection
- Skin and tissue are pulled towards one side and held firmly while injection is given
- After removing the needle, the skin and the tissue are released.
- This prevents tracking (leakage) of the medication into the subcutaneous tissue as the track that needle forms is zig zag and the drug cannot come out through it.
- Used in patients with poor compliance
- Once monthly injection can be given
  - Twice monthly in case of risperidone

CLINICAL QUESTIONS

Q. A 21-year-old girl started on antipsychotic by a primary care physician, due to a psychotic breakdown. It is noticed that she has developed amenorrhoea, decreased sexual desire and galactorrhoea as an adverse event to the drug. Which of the following dopamine pathway is involved in this adverse event to the drug?

A. Nigrostriatal pathway
B. Tuberoinfundibular pathway
C. Mesocortical pathway
D. Mesolimbic pathway

Answer: B

Solution

4 important pathways of Dopamine and their importance	
Mesocortical pathway	Negative symptoms of Schizophrenia
Mesolimbic pathway	Positive symptoms of Schizophrenia
Nigrostriatal pathway	Extrapyramidal symptoms
Tuberoinfundibular pathway	Hyperprolactinemia

Prolactin:

- Anterior pituitary hormone
- Dopamine inhibits secretion of prolactin through the tuberoinfundibular pathway
- Antipsychotics block the dopamine D2 receptors in this pathway to increase prolactin levels.
- Hyperprolactinemia secondary to antipsychotic use can explain the amenorrhoea, decreased libido and galactorrhoea
- Prolactin levels are positively associated with severity of tardive dyskinesia and negative symptoms of schizophrenia

HOW TO REMEMBER - TIP= Tubero-infundibular pathway is responsible for milk from breast tip (prolactin increase)

Reference:

Kaplan and Sadock's Synopsis of Psychiatry 11th Ed/P-1028

Q. Laloo, a 40-year-old man, is a newcomer to the world of book authoring. However, no one could understand the content of his book because it featured words that were never found in any dictionary and the topic was disjointed. He has become exceedingly introverted and self-absorbed in recent years. When he speaks to individuals, he discusses meta philosophical themes. What's the most likely diagnosis?

A. Mania
B. Schizophrenia
C. Depression
D. Delusional disorder

Answer: B

Solution

The history is suggestive of schizophrenia as following signs are described in patient.

- **Neologisms** - creates new own words.
- **Formal thought disorders** - theme is very disjoint
- **Presence of negative symptoms** - shy and self absorbed

options a-no shyness; c- words can be understood; option d-no metaphilosophically ideas are found.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page 313

LEARNING OBJECTIVES

Mood Disorders

- Depression
  - Epidemiology and aetiology
  - Symptoms and criteria for defining depression
  - Atypical depression
  - Drugs that cause depression as side effect
  - Treatment of depression
    - → TCA's (tricyclic, tetracyclic antidepressants)
    - → SSRI (selective serotonin reuptake inhibitors)
    - → Serotonin norepinephrine reuptake inhibitors /SNRI's
    - → Monoamine oxidase inhibitors (MAOI's)
    - → Atypical antidepressants
- Bipolar disorder
  - Mania
  - Hypomania
  - Mixed episode
  - Treatment of bipolar disorders
- Lithium
  - Indications
  - Side effects
  - Lithium toxicity
- Pregnancy & mood stabilizers
- PMDD (premenstrual dysphoric disorder)
- Psychiatric aspects of pregnancy
- Suicide

3 MOOD DISORDERS

- Primary abnormality is disorder of Mood/ emotions
- Also referred to as affective disorders

DEPRESSION

00:01:26

- Also referred to as unipolar depression/ major depressive disorder

Epidemiology

- 2nd Most Prevalent Psychiatric disorder according to WHO survey
- Prevalence rate: Varies from 5-17% (Average: 12%)
  - Very high prevalence rates
  - Every 5th person will have depressive attack once in lifetime
- Female: Male = 2:1
- Onset usually in middle years of age (40 years)
  - Prevalence is increasing in young people too.
- M/C in single / separated / divorced persons
- DALY (Disability adjusted life years) among psychiatric disorders is maximum lost to depression
  - Overall, it is the 2nd leading cause
  - First is Ischemic heart disease
- Most common cause of suicide

Important Information

- **Most prevalent psychiatric disorder: Specific phobias**
- **M/C psychiatric disorder in India (Excluding tobacco use disorders): Depression (Acc to NIMHANS 2016 Data)**

Symptoms

00:07:31

- **S – S**adness of mood/ depressed mood (Persistent & pervasive)
- **I** – Loss of Interest / pleasure (Anhedonia)
- **G** – Guilt/ Feeling of worthlessness
- **E** – Energy (Loss)/ Fatigue
- **C** - Concentration loss, cognition (Negative thoughts)
- **A** – Appetite (Loss/ gain) with significant weight changes (>5% change in 1 month)
- **P** – Psychomotor Agitation/ Retardation
- **S** – Suicidal thoughts
  - Suicidal thoughts are further classified into 3:
    - → Grade 1: Death wishes (Patient feels death should come to me)
    - → Grade 2: Suicidal wish (Patient says I wish I could commit suicide)
    - → Grade 3: Suicidal intent (Patient says I would be killing myself)
  - We should ask about it
- Early morning insomnia
  - Getting up >2 hrs. earlier than the usual waking time
  - Hypersomnia is also seen some cases
- Reduced latency of REM sleep
  - Sleep is usually decreased but it might be increased also.

How to remember

- SIGECAPSS

Previous Year's Questions

Q. Which of the following is a classical symptom of depression?

(JIPMER Nov 2018)

A. Early morning Insomnia
B. Weight loss
C. Guilt
D. Decreased appetite

Criteria for defining depression (According to DSM – 5)

- From the above 9 symptoms 5 must be present.
- At least 1 must be present out of first 2
- for atleast 2 weeks duration.

Specifiers

- Depression with Psychotic features i.e. Delusion/ hallucination
- Mood – congruent / incongruent
  - Congruency means whether thoughts of patient are matching with contents of delusion, hallucinations
    - → For e.g., a poor person thinking that the world will end soon.
  - Incongruent means when thoughts are not matching

with contents of delusion
  - → For e.g., A depressed patient thinking that he is powerful man alive.
- Psychotic depression
- ICD-11 changes
  - Earlier it was considered as psychotic depression was part of only severe depression.
  - Now it is said that psychotic depression can be seen in moderate depression also

Atypical depression
- Reversal of biological features
  - Increased appetite
  - Increased weight
  - Increased sleep
- Mood reactivity present
  - Mood improves with positive events
- Leaden paralysis
  - Subjective feeling of heaviness of limbs and difficulty in moving them
- Extreme sensitivity to interpersonal rejection (Atypical paralysis)
- Treatment
  - Response to SSRI & MAO inhibitors are better than TCA in these patients

Previous Year's Questions

Q. Which of the following is not a feature of atypical depression?

(AIIMS May 2018)

A. TCAS are better than MAO and SSRI for treatment
B. Variable mood responding to positive stimulus in surroundings
C. Increased sleep and weight gain
D. Marked fatigue and heaviness in the body

Depression With melancholic features (Involutional melancholia)
- Significant biological symptoms
  - Significant Anorexia
  - wt. loss
  - Early morning awakening
- Lack of mood reactivity & Anhedonia
- Depression is worse in morning, distinct quality of mood (Feeling of misery)
- Excessive guilt & marked agitation & retardation.
- Increases suicidal risk

Depression With catatonic features
- Catatonic features discussed in schizophrenia can also be seen here
- In ICD-11 catatonia has been made as separate diagnosis
  - Discussed with Mental disorder/ substance use disorder

Endogenous depression
- No clean-cut stressor

Exogenous depression/ Reactive depression
- Clear cut Stress present

Physical signs
- Veraguth fold
  - Triangular fold on nasal side of upper eyelid
  - Not seen nowadays
- Omega sign
  - Omega shape fold on forehead above root of nose

Etiology 00:27:25
- Multifactorial causes
- Neurotransmitter disturbances
  - Serotonin (M/C deficiency)
  - NE & dopamine deficiency
- Hormonal disturbances: HPA axis overactivity (50%) cases
  - Cortisol hypersecretion (Urinary, saliva or plasma cortisol levels)
  - Dexamethasone suppression test:
    - → High potency glucocorticoid not able to suppress ACTH, CRH and cortisol surge next day
    - → More definitive
- Hypo / Hyperthyroidism
  - Both presents with depressive symptoms
- Neuroanatomical considerations
  - Decreased activity in dorsolateral prefrontal cortex
  - Increased activity in amygdala.
- Genetic factors
  - Polymorphism in serotonin transporter gene
  - Promoter region has 2 variants, s(Short) & l(Long) allele
    - → Patient having "ss" allele: severe depression
    - → Patient having "sl" allele: Intermediate depression
    - → Patient having "ll" allele: Less severe depression
- Psychological Theory 00:33:21
  - Cognitive theory
    - → Given by Aaron beck
    - → He said that patients with depression have a lot of negative thoughts which are responsible for

maintaining the depression further

Important Information

Becks Cognitive Triad

- **Negative view of self (Ideas of worthlessness)**
- **Negative view of environment/others (Ideas of helplessness)**
- **Negative view of future (Ideas of hopelessness)**
  - **Out of the three, 3rd one is most important because it is associated with more cases of suicide**

  - Theory of learned helplessness
    - → Due to repetitive adverse events patient believes that he has no control over events
    - → Loses the motivation to act

Previous Year's Questions

Q. Beck's Cognitive triad of depression includes?

(PGI May 2018)

A. Negative view of self
B. Negative view of future
C. Negative view of past
D. World & Environment

Drugs that cause depression as side effect

- Antihypertensives
  - Reserpine
  - Methyl dopa
  - Beta blockers
- Steroids
  - OCPs & corticosteroids
  - Progesterone >> Oestrogen
- Interferons
- Barbiturates
- BZD

TREATMENT OF DEPRESSION 00:41:51

I. **Pharmacotherapy**

- Onset of action: 3 to 4 weeks
- Drugs are chosen on basis of S/E profile
- Duration of treatment
  - At least 6 months or
  - Duration of last episode
- Prophylactic Treatment
  - Indicated if 3 or more episodes
- Chronic depression
  - Depressive symptoms continuing for more than 2 years.
- Reduces number & severity

A. TCA'S (TRICYCLIC, TETRACYCLIC ANTIDEPRESSANTS) 00:46:10

- MOA
  - Block serotonin & Norepinephrine transporters
- S/E
  - Muscarinic (Anticholinergic side effects)
  - Adrenergic (α1, α2 block) leads to hypotension
  - Histamine (H1 block) leads to sedation
  - Cardiac Na+ channels block – causing arrhythmias
- Example
  - Imipramine, desipramine, trimipramine
  - Amitriptyline, nortriptyline, protriptyline
  - Amoxapine, doxepin, maprotiline, clomipramine
  - Clomipramine
    - → Most serotonin selective
  - Desipramine
    - → Most Norepinephrine selective

TCA Side effects and toxicity

1. CVS
- Postural hypotension (Hypertension can rarely be present)
- Tachycardia
- Chest pain
2. CNS
- Altered sensorium
- Respiratory depression
- Convulsions
3. ANS: Anticholinergic side effects
- Constipation
- Dry mouth
- Blurred vision
- Urinary retention
- Decreased seating and
- Delirium. Therefore, glaucoma and BPH patients should not be prescribed these drugs.
4. Alpha blockade
- Postural hypotension (Rarely hypertension may be present)
5. Metabolic acidosis
- Tissue hypoxia
6. H1 blockade
- Sedation
- weight gain
7. Hyperprolactinemia
- Amenorrhea
- Gynecomastia
- Galactorrhea
- Impotence
  - Mostly with amoxapine due to D2 blockade

Important Information

- Amoxapine causes D2 antagonism leading to Extrapyramidal side effects and hyperprolactinemia

8. ECG changes
- Seen in TCA toxicity
- Prolonged PR, QRS & QT interval
- AV block
- Right Axis deviation
- QRS > 100m/s
- Treatment
  - Alkalization using i/v NaHCO3
    → Mainstay of treatment
  - Gastric lavage
    → Only helpful in cases of immediate administration

B. SSRI (SELECTIVE SEROTONIN REUPTAKE INHIBITORS)

- M/C used
- MOA
  - Block serotonin reuptake
- 1st line for depression & also for most of anxiety disorders
- Example
  - Fluoxetine
  - Fluvoxamine
  - Citalopram
  - Escitalopram
  - Sertraline
  - Paroxetine & Velazodone.
- S/E
  - GI
    → Nausea (M/C)
    → Diarrhea
    → Constipation
      - Most with paroxetine
    → Anorexia
- Sexual dysfunction
  - M/C long term S/E
  - Decreased libido
  - Poor erection
  - Delayed ejaculation
- QTc prolongation
- CNS
  - Vivid dreams
  - Sweating
  - Anxiety
  - Insomnia
  - Sedation
  - Seizures
  - Emotional blunting
  - Extrapyramidal side effects
- Anticholinergic S/E
  - Constipation
- Haematological
  - Inhibition of platelet aggregation
  - Only of theoretical value
- Wt. gain
- Hyponatremia

Important Information

- DOC for Premature ejaculation is SSRI's (Dapoxetine)

Vortioxetine

- Inhibits serotonin uptake
- Agonism at 5HT1A,
- Partial agonist at 5HT1B
- Antagonist at 5HT3, 5HT1D & 5HT7 receptors

Serotonin syndrome 00:59:30

- Excess plasma concentration of serotonin
- Manifested when SSRI are given with MAOI, tryptophan, lithium
- Life threatening
- Diarrhea
- Hyperreflexia, myoclonus, rigidity, increase temperature
- Seizure, delirium, coma death
- Treatment
  - Cyproheptadine
  - Supportive care

Important Information

- Serotonin syndrome is more seen when SSRI given with MAO-A inhibitors than MAO-B inhibitors

Previous Year's Questions

Q. Which of the following is an adverse effect of a psychoactive drug. that acts as a Selective serotonin reuptake inhibitor?

(AIIMS June 2020)

A. Dry mouth
B. Constipation
C. Sexual Dysfunction
D. Blurring of vision

Previous Year's Questions

Q.Which of the following is not an adverse effect of Escitalopram?

(AIIMS May 2019)

A.Nausea
B.Vivid dreams
C.Anorgasmia
D.Sialorrhea

01:01:26

C. SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS /SNRI'S

- Blocks both Serotonin, Norepinephrine Reuptake
- Better results in severe depression
- Examples
  - Venlafaxine, Duloxetine, Milnaciprin, "Levomilnacipran"
- Side effects
  - Hypertension & Anticholinergic S/E

Discontinuation syndrome

- Occurs on sudden stoppage of antidepressants
- most commonly assosciated with Vanlafexine, Paroxetine, Fluvoxamine
- Clinical features
  - **F** – Flu like symptoms (Fatigue, aches, etc)
  - **I** – Insomnia
  - **N** – Nausea
  - **I** – Imbalance (Vertigo)
  - **S** – Sensory disturbances (Paresthesia)
  - **H** – Hyperarousal (Anxiety, Irritability)

How to remember

- FINISH

D. MONOAMINE OXIDASE INHIBITORS (MAOI'S)

- Two types
  - MAO-A & MAO-B inhibitors
- Nonselective MAO inhibitors
  - Phenelzine
  - Tranylcypromine
  - Isocarboxazid
- S/E: Cheese Rxn
  - Seen when patients on MAO inhibitors consume Food items with high amount of tyramine
  - E.g., Cheese: Hypertensive crisis
  - Treatment
    → Give phentolamine in crisis

E. ATYPICAL ANTIDEPRESSANTS

01:07:20

SARI

- 5HT2A & 5HT2C; Serotonin antagonism and reuptake inhibitors
- Examples
  - Trazodone
    → Side effects: Priapism
  - Nefazodone

Mirtazapine: NSSA (Noradrenergic & specific serotonergic antidepressant)

- Central α2 antagonism (increase NE and serotonin firing)
- Antagonism of 5HT2 & 5HT3 receptors
- Sedation, wt. gain, vivid dreams
- Minimal sexual Side effects

Bupropion: NDRI (Norepinephrine dopamine reuptake inhibitors)

- Minimal risk of wt. gain, sexual S/E or sedation
- Side effects
  - Insomnia
  - restlessness
  - Seizures
  - Smoking cessation

Tianeptive & Amineptive

- Serotonin reuptake enhancers

Antipsychotics

- Used in depression with antipsychotic features

Ketamine

- I/V infusion at subanaesthetic doses
- Rapid relief in depressive symptoms in treatment of refractory patients
- Rapid relief in suicidal ideation
- Durability is questionable
- In 2019, FDA approved nasal spray of Esketamine
  - TRD (Treatment Resistant Depression) patients
  - Given with oral antidepressants
  - Self-administered at doctor's office

Suicidality and antidepressant drugs

- FDA has issued black box warning for increased suicidal thinking and behavior in children and adolescents and later young adults (Under 25 years)
- Recent studies have found that suicidal thoughts and behavior are decreased over time for adult and geriatric

population
- No difference found in youth
- Concept of paradoxical suicide
  - It states that in patient taking antidepressants initially there is increased risk of suicide so monitoring for few days and weekly monitoring is done

II. **Psychotherapy** 01:16:34
- Cognitive behavioural therapy (Thoughts)
  - Based on thinking pattern
  - It works by removing
    - → Negative automatic thoughts
    - → Cognitive distortions faulty way of thinking which stays with patient
- Interpersonal therapy
- Behavioral therapy
- Family therapy
- Psychoanalytically oriented therapy

III. **Other somatic treatments**

A. ECT (Electroconvulsive therapy)
- Indications:
  - Depression with suicide risk
  - Depression with stupor
  - Psychotic depression
  - Treatment refractoriness

B. Repetitive Transcranial magnetic stimulation
- Non convulsive
- No Anesthesia

C. Vagal Nerve stimulation
- Deep brain stimulation

D. Sleep deprivation
- Effective for short span only
- No role in long term

E. Phototherapy
- Used in depression with seasonal pattern

Important Information

- **Usual treatment of depression: SSRI + CBT**

- Recurrent depressive disorder
  - More than 1 episode of depression
- Dysthymia
  - Symptoms of depression are present but are not severe enough to cause socioccupational disturbance
  - Duration of more than 2 years
- Chronic depression
  - Full-fledged depressive symptoms for more than 2 years
- Persistent depressive disorder
- Double depression
  - Depressive episode superimposed on dysthymia

BIPOLAR DISORDER 01:28:57
- Lifetime prevalence = 1%
- Males: Female = 1.1 : 1
- ICD: 11
  - Classifies bipolar disorder in two types
    - → Bipolar I: Mania + depression
    - → Bipolar II: Hypomania + depression
- Mean age of onset
  - Bipolar I: 18 years
  - Bipolar II: mid 20s

Symptoms 01:33:34

Mania

1. **M - M**ood elevation
2. **A - A**ctivity levels Increased
3. **F - F**light of ideas
4. **A - A**bnormal increase levels of activity / energy
5. **S - S**leep decreased (Need for sleep is also decreased)
6. **T - T**alkativeness (Overtalkativeness)
7. **G - G**randiose ideas and increased self esteem
8. **D - D**istractibility
9. **P - P**ainful consequences (Involvement in such activities

- Diagnosis criteria
  - 5 out of above 9 and both 1 & 2 symptoms required
  - Duration criterion: At least 7 days

How to remember

- **My Asia FAST GDP**

- Psychotic symptoms: Mood congruent/incongruent

Hypomania
- Symptoms similar but not severe enough
- Don't cause marked impairment
- Duration criteria
  - 4 days at least

Mixed episode
- Both mania & depression X 7 Days

Rapid cycling
- 4 episodes in one year

Important Information

- **Two episodes of mania are called distinct if there is duration of 2 months in between**

Bipolar etiology 01:41:30

- Neurotransmitters
  - Increase levels of serotonin & dopamine
- Genetic causes (18q & 22q & 21q)

Treatment of bipolar disorders

- Depends upon phase patient has come now
- Acute mania / mixed episode
  - Mood stabilizer
    - → Lithium
    - → Valproate
    - → Carbamazepine
    - → Oxcarbazepine
    - → Lamotrigine
    - → Atypical antipsychotics)
  - Antipsychotics
  - BZD
- Severe mania/ mixed
  - Use combination
- Less severe mania
  - Only mood stabilizers or only antipsychotics
- Mixed episode
  - Valproate is much more used than Lithium
- Mania with Psychotic symptoms
  - Antipsychotics
- D.O.C acute mania: Antipsychotic
- D.O.C severe mania: Antipsychotic
- In pregnancy: Prefer antipsychotics

Important Information

- **Valproate is most teratogenic (Can cause NTD-neural tube defects)**
- **Lithium can cause Ebstein's anomaly**

- Acute depression
  - Also called as bipolar depression
  - Mood stabilizer → (Lithium, lamotrigine)
  - Have better effect in manic symptoms compared to depressive symptoms except lamotrigine.
  - Lithium has anti suicide property
  - Olanzapine + fluoxetine
  - Quetiapine
  - Mood stabilizer + antidepressants
  - Lurasidone
  - Antidepressant mono therapy is avoided as it can cause manic switch.
  - ECT
- Maintenance
  - Lithium / valproate given on maintenance therapy
  - Indications
    - → 2/more episode or a single mania episode with significant risk
  - Continue for at least 2 years
  - Role of psychoeducation is also beneficial

Previous Year's Questions

Q. Treatment of Mania includes? (PGI Nov 2017)

A. ECT
B. Mood stabilizer
C. Antidepressant drugs
D. Antipsychotic drugs

01:52:20

LITHIUM

- 1st used by John Cade
- Monovalent cation
- Rapid & complete absorption after oral intake

- Half life
  - initially 1.3 days
  - later 2.4 days (>1 year)
- Don't get metabolized
- Excretion by kidney
- Don't bind to plasma protein

Indications

1. Acute manic episode
2. Bipolar depression
3. Maintenance treatment
   - It reduces severity, frequency and duration of both manic and depressive episodes
4. Ant suicide property
5. Schizoaffective disorder
6. Major depressive disorder
7. Neutropenia
8. OCD
9. Headache
   - Cluster headache
   - Migraine
10. Ulcerative colitis

Correlates of lithium responsiveness

- Euphoric mania
  - For dysphoric mania valproate is a better drug
- MDI (Mania Depression Interval) sequence
- ≤ 3 episodes
- No rapid cycling (For rapid cyclers DOC is valproate)
- Family history of bipolar disorder
- Absence of comorbidities like substance use

Important Information

TDM (Therapeutic drug monitoring)- is required for lithium as it has narrow therapeutic index

- Acute mania : 1.0-1.5 mEq/dL
- Maintenance treatment : 0.6 – 1.2 mEq/dL
- Toxicity >1.5 mEq/dL

Side effects

- Neurological
  - Postural tremors
    - → DOC-β- Blockers
  - Lack of spontaneity
  - ↑ICT (Rare) and
  - Peripheral neuropathy
- Endocrine
  - Hypothyroidism
  - Rarely hyperthyroidism, hyperparathyroidism
- Renal
  - M/C is polyuria
  - May progress to diabetes insipidus
    - → Treated with thiazide diuretics, potassium sparing diuretics like amiloride, triamterene or spironolactone)
  - Nephrotic syndromes
  - RTA (Renal Tubular Acidosis)
  - Interstitial fibrosis
- Dermatological
  - Acne
  - Rashes
  - Worsen psoriasis
  - Hair loss
- Nausea, vomiting, wt. gain
- Teratogenic S/E
  - Ebstein anomaly
  - ASD
  - VSD

Lithium toxicity

- Has Narrow Therapeutic Index (>1.5 mEq/dL)
- Precipitating factors
  - Dehydration
  - Low sodium diet
  - Renal impairment
- Clinical features
  - GI symptoms
    - → Abdominal pain
    - → vomiting
  - CNS
    - → Coarse tremors
    - → Ataxia
    - → Dysarthria
  - Muscle fasciculations
  - Increased DTR
  - Convulsions
  - Impaired consciousness
  - Death
- Management
  - Stop LITHIUM
  - Correct dehydration
  - Use of sodium polystyrene sulfonate or polyethylene glycol
    - → To remove unabsorbed lithium from GI)
  - Hemodialysis
    - → In severe cases

Pregnancy & mood stabilizers 02:06:57

- Pregnancy increases risk of relapse of bipolar disorder
- Leads to adverse impact on mother & child
- Don't stop mood stabilizers abruptly
- Li+ → if continued during pregnancy is monitored by
  - High resolution USG & ECHO by 6th & 18th week as chances of lithium toxicity is high.
- Valproate, carbamazepine should be avoided in pregnancy as these are teratogenic
- Lamotrigine safer than valproate and CBZ
- Antipsychotics: Safer and preferred for manic episode

PMDD (PREMENSTRUAL DYSPHORIC DISORDER) 02:10:38

- New in DSM-5 and ICD-11
- Symptom onset is 1 week before menses
- Resolves within 1 week after menses stop
- Symptoms
  - Irritability
  - Mood lability
  - Depressive mood
  - Anxiety symptoms
  - Lethargy
  - Oedema
  - Breast tenderness
  - Weight gain
  - Sleep & appetite changes
- Socio occupational dysfunction should be present
- Treatment
  - Symptomatic
  - Analgesics
  - Diuretics
  - SSRI & BZD

Important Information

- PMDD (PREMENSTRUAL DYSPHORIC DISORDER) is Listed as Genitourinary disorder in ICD-11

PMS (Premenstrual syndrome)

- Milder variant of PMDD

PSYCHIATRIC ASPECTS OF PREGNANCY

Postpartum blues

- Baby blues
- Experienced by 30-75% of female
- Transient symptoms like tearfulness; sadness, mood lability, sleep disturbances
  - Onset 3-5 days
  - Lasts for days to weeks
  - Support to mother is enough

Postpartum depression 02:14:33

- DSM- 5: Depressive episode with peripartum onset
- More severe
- 10-15%
- In 3 months of delivery
- Clinical features
  - Sadness
  - Tearfulness
  - Lability
  - Sleep disturbances
  - Anhedonia
  - Suicidal thoughts /thought of harming baby/guilt
  - History of mood disorder
  - Family h/o mood disorders
  - Increased risk of future depressive episodes
- Treatment
  - Pharmacotherapy and psychotherapy

Important Information

- In 2019, FDA approved Brexanolone for Postpartum depression
- Continuous i.v. infusion for 60 hours
- it is similar to endogenous allopregnanolone- which is a hormone that decreases after childbirth

Previous Year's Questions

Q. A 28 year old mother was diagnosed with mild depression, she has a 3 month old child. Which among the following should be preferred?

(FMGE 2021)

A. Cognitive therapy
B. Cognitive therapy + anti-depressant
C. Antidepressant alone
D. Electroconvulsive therapy

Postpartum psychosis

- Within 2-3 weeks
- Clinical features
  - Initial: Tearfulness, insomnia, emotional lability
  - Delusion & hallucinations
    - → Baby is dead
    - → She didn't give birth
  - Risk of harm to self or baby
  - Episode of bipolar disorder
- Treatment
  - Antipsychotics + Li+ + antidepressants
- Mostly recovery is complete
- 2/3rd patients have another episode in next 1 year

SUICIDE 02:20:55

- Suicide rate in india- 10.3 / lakh population
- CSF levels of 5 HIAA (5 hydroxy indole acetic acid) inversely relates with risk of suicide
  - Higher the levels of 5HIAA lesser the chances of suicide
  - Decreases impulsivity
  - 5HIAA is a metabolite of serotonin

Important Information

- MC method of Suicide is Hanging followed by use of poisons

Causes

- Depression
  - M/C cause of suicide
- Schizophrenia
- Alcohol dependence
- Borderline personality and antisocial personality disorder

Risk factor

- Previous suicide attempt
  - Most important risk factor
- Signs of suicidal intent
  - Writing a suicide note
- Male sex
- Hopelessness
- Age> 45 years
- Substance abuse
- Divorced, separated
- Unemployed
- Chronic illness
- Family history of suicide
- Poor social support
- Sexual abuse

Parasuicide

- Act of self-harm with no intent to kill self

Copycat suicide

- Seen in adolescents
- In this person tries to attempt the suicide because his peer or the person he worships has attempted suicide earlier.

Physician suicide

- Suicide rate in doctors is much higher than the general population
- Psychiatrists > Ophthalmologist > Anaesthetist

Paradoxical suicide

- In depression patient has thoughts of suicide
  - But he has no energy to act on those thoughts
  - due to psychomotor retardation
  - Acts as a protective factor
- When patient is treated with Antidepressants
  - Changes in thoughts happen later
  - Change in energy levels occurs early
- In this window period patient is more prone to suicide
- Patient and family is instructed to keep away from roof, ropes, knife and other potentially harmful things

Previous Year's Questions

Q. A patient with severe depression was treated with TCA and reported improvement in symptoms after 4 weeks of treatment. Which of the following is most important concern at the time of his discharge? (INICET 2020)

A. Suicidal tendencies with overdose of TCA's
B. TDM of TCA
C. ECG monitoring for arrythmias
D. To prescribe modafinil to counteract sedation due to TCA

Previous Year's Questions

Q. True about suicide attempts are all are all except? (PGI May 2018)

A. Hopelessness is one of the important predictors
B. Parasuicide is a failed attempt to kill self.
C. Increased risk of substance abuse
D. Commonly seen in young male

MISCELLANEOUS

Indicators of bipolar depression

- History and diagnosis
  - Patient come with first depressive episode/ symptoms
    → Depressive episode
  - In future same patient come with depressive episode 2 years later
    → Recurrent depressive disorder
  - In future same patient come with mania episode 2 years later
    → Bipolar disorder

- Early age at onset
- Psychotic depression before 25 years of age
- Rapid onset and offset of episode, short duration
- Recurrent episodes (>5)
- Marked psychomotor retardation
- Mood lability as a trait in patient
- Family history

Manic switch and its management

- Patient of depression on treatment with antidepressants develop Mania symptoms

Important Questions

Q. What is this sign called as

Ans*.

- Omega sign

Explanation

- Due to change in tone of facial muscles
- Seen in depression

Q. What is this sign called as

Ans.

- Veraguth fold

Explanation

- Triangular skinfold on nasal side of upper eyelid
- Seen in depression

CLINICAL QUESTIONS

Q. A 28-year-old female was brought to psychiatry OPD. She appeared agitated and claimed that her husband has "stolen baby from her womb". Patient was also muttering to herself and has not slept for last 4 days. She had delivered a healthy female child three weeks back, however was not taking care of the baby. The symptoms started in seconds week postpartum. The likely diagnosis is:

A. Post partum blues
B. Post partum depression
C. Post partum psychosis
D. Schizophrenia

Answer: C

Solution

Onset in postpartum period and history of delusions (that husband has stolen baby from womb) and possibly hallucinations (as suggested by muttering to self) is suggestive of postpartum psychosis.

Postpartum blues/Baby blues: This reaction results from psychological factors (e.g., the emotional stress of childbirth, the feelings o added responsibility) as well as physiological factors (e.g., changes in hormone levels, fatigue).

- Experienced by 30-75% of female
- Transient symptoms like tearfulness; sadness, mood lability, sleep disturbances
- Onset 3rd day peak by 5th day
- Resolves by 7 - 10th day.
- Support to mother is enough

Postpartum depression

- DSM- 5: Depressive episode with peripartum onset
- More severe depressive symptoms seen in 10-15% in the first 3 months of delivery
- **Sadness, tearfulness, lability, sleep disturbances**
- **Anhedonia**
- Suicidal thoughts /thought of harming baby/guilt
- **History of mood disorder**
- Family h/o mood disorders
- Increased risk of future depressive episodes
- Treatment-Pharmacotherapy and psychotherapy
- **In 2019**, FDA approved **Brexanolone** (continuous i.v. infusion for 60 hours)- it is similar to endogenous **allopregnanolone**- which is a hormone that decreases after child birth

Postpartum psychosis

- Within 2-3 weeks
- **Initial-** tearfulness, insomnia, lability
- Delusion & hallucinations **(baby is dead, she didn't give birth)**
- Risk of harm to self or baby
- Episode of bipolar disorder
- Mostly recovery is complete
- 2/3rd patients have another episode in next 1 year
- **Rx- antipsychotics + Li+ + antidepressants**

Reference:

Kaplan and sadocks synopsis of psychiatry edition 11 page 839

Q. A 26 year old male was brought to psychiatry emergency with symptoms of aggressive behaviour, lack of sleep, singing and dancing on streets and claims that he is a bigger star than all the Khans of bollywood. The symptoms have been continuing for 3 weeks. At the time of examination, patient appeared agitated and aggressive. Which of the following should be used for immediate control of symptoms-

A. Lithium
B. Valproate
C. Olanzapine
D. Promethazine

Answer: C

Solution

Mania

Clinical features:

Mood

- Euphoria
- Irritability

Treatment for acute mania:

Antipsychotics

- Atypical antipsychotic, such as olanzapine, quetiapine, or risperidone, is therefore usually the first-choice treatment.
- Lithium is effective in mania, but less so than antipsychotic drugs, the effect in mania may take several days to begin.

Anti-epileptic drugs

- Valproate is effective in acute mania. It is slightly less effective than antipsychotics.
- Carbamazepine is another anti-epileptic drug that can be used in mania but is 2nd line drug to treat mania.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 378

LEARNING OBJECTIVES

Neurotic, Stress Related & Somatoform Disorder

- Anxiety disorders
  - Panic disorder
  - Agoraphobia
  - Specific phobias
  - Social and generalized anxiety disorder
- Obsessive compulsive and related disorder
  - Obsessive-compulsive disorder
  - Hoarding disorder
  - Body dysmorphic disorder
  - Olfactory reference syndrome
  - Body focused repetitive behaviour
    - → Trichotillomania
    - → Excoriation disorder

4 NEUROTIC, STRESS RELATED DISORDERS & SOMATOFORM DISORDER

- Anxiety
  - Alerting signal
  - Makes one take an action
  - Unknown, internal and vague threat
- Fear
  - Known, external, definite threat
- Features of anxiety
  - Sweating
  - Tremors
  - Restlessness
  - Tachycardia
  - Mydriasis
  - Increased urinary frequency
  - Diarrhea
  - Hyperreflexia and
  - Cold clammy skin

Previous Year's Questions

Q. All of the following are features of anxiety except?

A. Palpitations

B. Tremors

C. Increased reflexes

D. Warm extremities

ANXIETY DISORDERS

00:04:21

- As a group, most common psychiatric disorder
- Individually, specific phobia is most common

Important Information

- **Acc to NMHS 2017, in India, depressive disorders are the most common**

A. Panic disorder

00:05:51

- Panic attack
  - An acute attack of intense anxiety
  - feeling of impending doom
- Palpitations, choking sensations, chest pain, dizziness, depersonalization, derealization
- Fear of having a heart attack, dying or going mad
- Panic disorder: Recurrent and unexpected panic attacks
- Anticipatory anxiety
- Differential diagnosis
  - Myocardial Infarction
  - Angina
  - Cardiac arrhythmias
  - mitral valve prolapse
  - Acute asthma
  - COPD
  - Pulmonary embolism
  - Pheochromocytoma
  - Carcinoid syndrome
  - Hyperthyroidism
  - Hypoglycemia
  - Anemia
  - Seizure disorder
- Females > males
- Agoraphobia is a comorbidity of panic disorder
- Neurotransmitter
  - NE
  - Serotonin
  - GABA
  - Cholecystokinin

Previous Year's Questions

Q. A 1 year medical student presents with recurrent episode of choking sensation, breathlessness, intense sweating along with feeling of impending doom. Usually the episodes occur prior to exam. What is the most likely diagnosis?

(NEET Jan 2020)

A. Panic attack

B. Acute stress Disorder

C. Generalised anxiety disorder

D. Phobia

B. Agoraphobia

00:14:55

- Fear of places from which escape might be difficult
  - Fear of open spaces
  - Fear of crowded places
  - Fear of enclosed places
  - Fear of travelling alone
  - Fear of public transport

- Home bound
- Agoraphobia and panic disorder are usually comorbid
- Treatment
  - Combination of Pharmacotherapy and Psycho therapy
  - Pharmacotherapy
    - → Benzodiazepine & SSRIs
    - → Venlafaxine, buspirone, clomipramine
  - Psychotherapy
    - → Behavioral therapy (Psychotherapy of choice in phobias)
    - → Cognitive behavioral therapy (Psychotherapy of choice in panic disorders)
    - → Relaxation techniques, psychodynamic psychotherapy

Important Information

- In most of the anxiety disorders CBT is the psychotherapy of choice except phobia's where behavioral therapy is used

C. Specific phobias

- Strong, persistent & irrational fear of an object or a situation
- DSM-5 types
  - Animal type
  - Natural environment type (E.g., storms, water)
  - Blood-injection-injury type (E.g., invasive medical procedure)
  - Situational type (E.g., lifts, planes)

Phobias	Theme of Phobias: (Fear of)
Nyctophobia	Darkness
Acrophobia	Heights
Claustrophobia	Closed spaces
Ailurophobia	Cats
Cynophobia	Dogs
Mysophobia	Germs or dirt
Pyrophobia	Fire
Xenophobia	Strangers
Thanatophobia	Death
Hydrophobia	Water

- Treatment 00:22:21
  - SSRIs
  - Benzodiazepines
  - beta blockers (Adjunct)
  - Behavioural therapy
    - → Systematic desensitization: Hierarchy of exposure is created starting from minimum to high grade with appropriate relaxation techniques)
    - → Therapeutic graded exposure (Or exposure and response prevention or in vivo exposure)
    - → Flooding (Implosion technique): Maximum exposure is given in one go. (Not preferred)
    - → Participant modeling: Therapist act as a model for patient

Social anxiety disorder (Social phobia)

- Fear of social situations
- Fear of embarrassment
- Treatment same as other phobias

Generalized anxiety disorder 00:30:01

- Free floating anxiety
- Excessive worries
- Somatic symptoms of anxiety
  - Restlessness, easy fatigue, muscle tension
  - Poor concentration, insomnia, irritability
- Treatment
  - SSRIs, BZDs, buspirone, venlafaxine
  - CBT
  - Supportive psychotherapy,
  - Insight oriented psychotherapy

Previous Year's Questions

Q. A women complaints of difficulty in sleeping at night. she says that she gets thoughts that her parents may die in an accident. She similarly has many other worries. What is likely diagnosis?

(FMGE Dec 2020)

A. Generalized anxiety disorder
B. Adjustment disorder
C. Obsessive Compulsive disorder
D. Panic disorder

OBSESSIVE COMPULSIVE & RELATED DISORDER

A. OBSESSIVE-COMPULSIVE DISORDER

- Obsessions
  - Recurrent, intrusive thoughts images or impulses, which cause anxiety
  - Patient considers them as a product of their own mind (D/d thought insertion)
  - Patient finds them excessive, irrational and senseless, at some time during the illness (D/d delusions)
  - Patient tries to resist or neutralize them

- Compulsions
  - Repetitive behaviors/mental acts performed in response to obsessions
  - Reduce anxiety temporarily
- Ego dystonic (Not acceptable to self)
- With good insight/poor insight/absent insight (Delusional belief)
- Duration criteria: Two weeks
- Lifetime prevalence: 2-3%
- M/C comorbidity: Depression
- Caused by Serotonergic dysregulation 00:31:15
  - Cortico-striato-thalamico-cortical tract is involved
  - Orbitofrontal cortex - caudate - thalamus-orbitofrontal cortex
  - B/l small caudate nucleus

PANDAS

- Pediatric autoimmune neuropsychiatric disorders associated with streptococcus infections
- Children OCD Precipitated by Group A β hemolytic streptococcus
- Autoimmune response to basal ganglia
- OCD and tics

Symptom patterns

- Obsession of contamination with compulsion of washing and avoidance (M/C)
- Pathological doubt with compulsions of checking (Second M/C)
- Intrusive thoughts (Usually with mental compulsions)-sexual, aggressive and religious content
- Symmetry or precision with compulsion of slowness
- Magical thinking
  - Just because they thought about an event, it will occur in reality

Important Information

- M/C obsession: Obsession of contamination
- M/C compulsion: Compulsion of checking

Previous Year's Questions

Q. Most common symptom associated with adult OCD?

(AIIMS MAY 2018)

A. Pathological doubt
B. Need for symmetry
C. Sexual
D. Aggressive

Course and prognosis

- Acute onset: 50%
- Chronic illness
- Significant improvement: 20-30%
- Moderate improvement: 40-50%
- No improvement or worsening: 20-40%

Treatment 00:49:38

- Combination of pharmacotherapy and psychotherapy
- Pharmacotherapy
  - SSRIs and clomipramine
  - Antipsychotics (Augmentation with haloperidol, quetiapine, risperidone and olanzapine)
  - Lithium, Valproate, carbamazepine, venlafaxine
- Psychotherapy
  - Exposure and response prevention (Kind of CBT/BT)-best
    → Response prevention >> Exposure
  - Desensitization, thought stopping, flooding, aversive conditioning
  - Psychodynamic psychotherapy, family therapy
- Psychosurgery:
  - Cingulotomy
  - Capsulotomy (Sub caudate tractotomy)

Previous Year's Questions

Q. A female patient is having repetitive thoughts of contamination with dirt followed by repetitive hand washing. Which of the following modality will be considered as the therapy of choice? (INICET 2021)

A. Cognitive behavior therapy (CBT)
B. Exposure and response prevention (ERP)
C. Systematic desensitization
D. Dialectical behavioral therapy

Explanation

- ERP is a type of CBT. CBT is a broader term so we will choose more specific answer that is ERP.

Previous Year's Questions

Q. Excessive fear of getting contaminated, repeated washing, repetitive Checking behaviour and excessive doubts are features of? (FMGE Aug 2020)

A. Panic attack.
B. Agoraphobia
C. Obsessive compulsive Disorder
D. Generalized anxiety Disorder

B. HOARDING DISORDER

00:56:15

- Acquiring and inability to discard things, that are of little or no value
- Fear of losing something important
- DSM-5 and ICD-11 changes
- SSRIs and CBT
- Exposure and response prevention is not so effective

C. BODY DYSMORPHIC DISORDER

00:58:50

- Preoccupation with an imagined defect/slight anomaly in physical appearance
- Repetitive behavior (E.g., mirror checking)
- Mental acts
  - Comparing self with others
- Usually hair, nose or skin
- With good insight/poor insight/absent insight (Delusional belief)

D. OLFACTORY REFERENCE SYNDROME

- New in ICD-11
- Preoccupation that one is emitting foul odor or breath, that is absent or only slightly noticeable
- Repeated checking or avoidance

E. BODY FOCUSED REPETITIVE BEHAVIOR

01:02:43

- Repetitive actions directed at integument (Skin, hair) and inability to stop them

Trichotillomania

- Repetitive pulling of hair
- Inability to stop

Excoriation disorder

- Repetitive picking of skin
- Inability to stop

Previous Year's Questions

Q. Which of the following body focused repetitive disorder is included in obsessive compulsive or related disorder, according to ICD 11?

(INICET 2021)

A. Body dysmorphic disorder
B. Hypochondriasis
C. Trichotillomania
D. Olfactory reference syndrome

TRAUMA AND STRESS RELATED DISORDER

PTSD (POST-TRAUMATIC STRESS DISORDER)

01:04:24

- Serious trauma significant threat of a serious injury to self or others
- E.g.: Trauma such as earthquake/ floods, wars, murder, rape, serious accidents etc.
- Seen more in
  - Young
  - Adults
  - Females
- Neuroanatomy
  - Hippocampus & Amygdala

Symptoms

- Intrusive symptoms
  - Re-experiencing trauma in form of 'flashback' vivid memories, nightmares
- Avoidance
- Arousal symptoms
  - Hypervigilance
  - Insomnia
  - Exaggerated startle response
- Emotional numbing
- Anhedonia
- Symptoms must last for at least 1 month to diagnose it as PTSD.
- If symptoms develop after 6 months – PTSD with delayed onset

Treatment

- SSRIs
- CBT (Treatment of choice)
- Eye movement desensitization & reprocessing (EMDR)
- Psychodynamic Psychotherapy

Complex PTSD (Included in ICD 11)

- Exposure to an event or usually series of events of extremely threating nature
- Slavery, childhood sexual or physical abuse etc
- Additional symptoms
  - Severe abnormalities of affect regulation
  - Belief that one is defeated, and worthless, feelings of shame or guilt
  - Inability to feel close to others or sustain a relationship

Important Information

- Acute stress disorder greater than 3 days and less than I month in duration

Previous Year's Questions

Q. A 24-year-old lady presented with sudden onset of chest pain palpitations resting for about 20 minutes. She says there were 3 similar experience episodes in the past. Add the investigations are normal. What is the likely diagnosis?

(FMGE - June - 2019)

A. Acute psychosis
B. Panic attack
C. Post-traumatic stress disorder
D. Mania

ACUTE STRESS REACTION

01:15:30

ICD 10

- Transient disorder that develops in response to exceptional physical/mental stressor and subsides within hours or days
- Initial state of daze, followed by anxiety, depression, despair or agitation

Important Information

- In ICD II acute stress reaction is removed from mental disorders and classified as reaction to trauma

- Treatment
  - Debriefing
  - CBT
  - SSRIs

ADJUSTMENT DISORDER

01:18:00

- Usually follow events which are critical but not uncommon in the course of life
- Relationship issues, changes of job, migration, death of loved one
- Depressed mood or anxiety symptoms

Important Information

- If symptoms fulfill the criteria of depression diagnosis of depression is preferred over adjustment disorder

Treatment

- Pharmacological (Antidepressants, antianxiety disorders)
- Psychotherapy (Supportive psychotherapy)

Previous Year's Questions

Q. A male patient lost his job recently (1 week back) following which he became irritable and had sad mood, the thoughts of job and future made his mood even worse. He was more irritated towards the people in his home, but he occasionally went for a movie with his friend and was able to enjoy with them but after returning back to his home, he again had similar symptoms. Probable diagnosis?
(INICET-20)

A. Generalized anxiety disorder
B. Adjustment disorder
C. Mixed anxiety depression
D. None of the above

SOMATIC SYMPTOM AND RELATED DISORDER (SOMATOFORM DISORDER) 01:23:00

- Prominent physical symptoms /medically unexplained symptoms

Somatic Symptom Disorder

- Also known as Somatization disorder/Briquet's syndrome
- One or more somatic symptoms
- Excessive thoughts, excessive behaviors, excessive feelings
- Onset associated with some stressor
- Treatment: Psychotherapy

Important Information

- ICD-11 uses term "Bodily distress disorder" for somatic symptom disorder

Hypochondriasis

- Preoccupation with fear of having or an idea that one has a serious physical illness
- Despite investigations and medical reassurance
- Belief is not firm and fixed
  - D/d Delusion
- DSM-5: Illness anxiety disorder
- Psychotherapy

Important Information

- Hypochondriasis is preoccupation with diagnosis whereas somatic symptom disorder is preoccupation with symptoms

Previous Year's Questions

Q. A non-diabetic non hypertensive patient has some extra beats in pulse. Doctor informed it is benign - But patient is still going for investigations from one doctor to doctor. This is a type of the?
(FMGE – Nov – 2017)

A. Conversion disorder
B. Hypochondriac disorder
C. Somatoform pain
D. Depression

Body integrity dysphoria

- Newly added in ICD 11
- Persistent and intense desire to become physically disabled (Amputation of limb or blindness)
- Sense of alienation or discomfort with currently non-disabled body part
- May request surgical amputation or may pretend to be disabled

Previous Year's Questions

Q. All are somatoform disorder except?
(PGI - Nov - 2017)

A. Somatization disorder
B. Illness anxiety disorder
C. Persistent Somatoform pain disorder
D. Somatic passivity

DISSOCIATIVE DISORDERS (CONVERSION DISORDERS) / (HYSTERIA)

01:32:06

- Dissociation is disruption in normally integrated functions of memory, identity, perception, consciousness, and motor behavior
- Produced by 'Psyche' unconscious symptoms, help deal with anxiety.
- Usually sudden onset, associated with psychological stressor.

Gains

- Three types and all are unconscious
- Primary gain
  - Internal psychological motivation
- Secondary gain
  - External (Aware of psychological motivation)
  - Relief from duty
- Tertiary gain
  - Gain to a third person.

Types

1. **Dissociative amnesia**

- Sudden loss of memory for traumatic event of personal significance

2. **Dissociative fugue**

- Sudden, unexpected travel
- Unexcepted but a place with emotional significance
- Inability to recall past memory
- May involve confusion about identity or assumption of a new identity
- Basic self-care is maintained, and behavior appears normal during travel.
- In DSM 5, dissociative fugue has been made a specifier of dissociative amnesia

3. **Trance disorder**

- Trance states
  - Change in individual's state of consciousness
  - Loss of sense of 'Personal identity'
- Awareness of surrounding becomes restricted and movement and speech may become restricted and may be experienced as being outside one's control
- No experience of being replaced by alternate identity.

4. **Possession trance disorder**

- Experience that the 'Personal identity' has been replaced by external 'Possessing identity'
- Individual's behaviors are experienced as being controlled by 'Possessing identity'
- Both personalities coexist

5. **Dissociative identity disorder or multiple identity disorders**

- 2 or more personalities alters in an individual
- One evident at time
- Usually unaware of each other existence.

6. **Dissociative (Functional) Neurological Disorder /conversion disorder**

- Motor, sensory, cognitive deficit
- No physical cause could be found
- Caused by Psychological causes
- Don't confirm physiological and anatomical principles
- "La belle indifference"
  - Lack of concern/ indifference to symptom
- D/d
  - Acute intermittent porphyria
    → H/o abdominal pain

7. **Depersonalization / Derealization**

- Depersonalization
  - Feeling of unreality of self
  - Feeling of being detached from body and watching self, like in a movie
    'as if' they have changed
- Derealization
  - Feeling of unreality of world
  - world apoears fuzzy, dream like.
  - Reality testing is intact

8. **Others**

- Genser's syndrome
  - Usually seen in prisoners
    → But not exclusively in them
  - Word approximation (Vorbeireden, vorbeigehen)
  - Auditory / visual hallucinations
  - Clouding of consciousness

Treatment of dissociative disorders

- Don't give him sick role
- Remove all secondary & tertiary gains
- Behavioral therapy
- Abreaction
  - Attempt made to bring back conscious memories using hypnosis, medications etc.
- Psychoanalysis
- Benzodiazepines, thiopentone, amytal for abreaction

Other disorders

A. FACTITIOUS DISORDER (MUNCHAUSEN SYNDROME)

- Willful production of symptoms to get medical attention & take 'sick role'

- Relation to medical field
- Pseudologica fantastica
- Professional patients, hospital addiction
- Sick role
- Munchausen syndrome by proxy

B. MALINGERING

02:03:32

- Not a psychiatric disorder
- Wilful production of symptoms for conscious, external incentives like financial incentive, avoiding legal case, tough job
- Should be suspected
- Referral by court of law
- Discrepancy in complaints and objective findings
- Lack of cooperation by patients during evaluation and treatment

C. CHRONIC FATIGUE SYNDROME (MYALGIA ENCEPHALOMYELITIS)

- CDC criteria
  - Severe unexplained fatigue > 6 months
  - New or definitive onset
  - Not due to exertion
  - Not resolved by rest
  - Functional impairment
  - ≥ 4 of following new symptoms
    - → Impaired memory and concentration
    - → Unrefreshing sleep
    - → Pain in joints
    - → Post exertional malaise > 24hr
    - → sore throat
    - → Tender lymph nodes
- No pathognomic features, symptoms non specific: EBV inconclusive
- Depression is mc comorbidity
- Treatment
  - Symptomatic Pharmacotherapy
  - Psychotherapy (CBT)

D. PSEDOCYESIS

- Development of classical signs of pregnancy
  - Abdominal enlargement (Umbilicus doesn't get everted)
  - Reduced menstrual flow or amenorrhea
  - Subjective sense of fetal movements
  - Breast engorgement
  - Labour pains at expected date of delivery
  - Non pregnant female, usually has a false belief of being pregnant

E. CULTURE BOUND SYNDROME

02:08:28

- Seen in particular culture

DHAT syndrome

- Belief of passage of semen in urine
- Accompanying physical and mental health weakness
- Common in India, Pakistan, Bangladesh.

KORO syndrome

- Fear that penis will retract into abdomen and result in death

Latah syndrome

- Automatic obedience
- Echolalia
- Echopraxia

PSYCHOSOMATIC DISORDERS

- Physical disorders caused by or aggravated by psychological factors
- Stress
- General adaptation syndrome
  - Given by Hans Selye
  - Stage 1
    - → Alarm reaction
    - → Fight or flight
  - Stage 2
    - → Stage of resistance
    - → Body adapts
  - Stage 3
    - → Stage of exhaustion
    - → Resistance decreases and collapses

DEATH AND DYING

02:11:35

Stages of death

- Described by Elizabeth, Kubler Ross

- **D** - Denial & shock
- **A** - Anger
- **B** - Bargain
- **D** - Depression
- **A** - Acceptance

How to remember

- DABDA

GRIEF, BEREAVEMENT & MOURNING

Grief

- Psychological feeling precipitated by death of loved ones
- Negative emotions mixed with positive emotions
- Longing to join the deceased person
- Transient hallucinations may occur

- Normal grief
  - Up to 6 month
- Complicated grief
  - Prolonged grief with intense emotions
  - Duration more than 6months

Important Information

- ICD 11 describes Complicated grief under "Prolong grief reaction" whereas DSM 5 describes under "Persistent complex bereavement disorder

Bereavement

- State of being deprived of a loved one due to death

Mourning

- Process through which grief is resolved

Important Information

- Expected symptoms after a psychological trigger: Grief
- Too many and severe symptoms after a psychological trigger: Depression
- Symptoms in-between the above two: Adjustment disorder

MISCELLANEOUS

02:21:32

Separation anxiety disorders

- Excessive fear of separation from major attachment figures
- Worries that something bad will happen to attachment figure and himself too
- Refusal to go to sleep and sleep separately
- If separation happens significant distress including physical symptoms is seen
- CBT and SSRIs

Important Information

- Relationship between child and mother is attachment Whereas between mother and a child is bonding

Selective mutism

- Failure to speak in one situation
- Usually fluent in others
- Usually have social anxiety
- CBT and SSRIs

DISORDERS OF ATTATCHMENT

- Disorders that develop due to lack of normal attachment to caregivers
- Due to maltreatment, emotional or physical abuse
- Children that were raised in foster care centers

Reactive attachment disorder

- Emotionally withdrawn
- Does not seek attention of caregivers
- Looks sad and irritable

Disinhibited social engagement disorder

- Overfamiliarity with strangers
- Doesn't look for caregivers

CLINICAL QUESTIONS

Q. A teenage boy is brought to the psychiatrist with complaint of him talking and acting strange. On examination he has auditory hallucinations, agitation and rapid incoherent speech. The duration of symptoms is unknown. Substance abuse history is also unknown. The diagnosis could be all of the following except?

A. Schizoaffective disorder
B. Generalized Anxiety Disorder
C. Bipolar Disorder
D. Substance-induced psychotic disorder

Answer: B

Solution

Although patients with generalized anxiety disorder can present with restlessness or irritability, they are usually not agitated and do not have auditory hallucinations or thought disorder.

NOTE: mood disorders can also be associated with psychotic features.

Reference:

Kaplan and sadocks synopsis of psychiatry edition 11, page 209,210,342

Q. OCD is characterized by the presence of obsessions and/or compulsions. Obsessions are recurrent and persistent thoughts, urges, or images that are experienced as intrusive and unwanted, whereas compulsions are repetitive behaviors or mental acts that an individual feels driven to perform in response to an obsession. An obsessive compulsive neurosis patient is likely to develop:

A. Hallucination
B. Depression
C. Delusion
D. Schizophrenia

Answer: B

Solution

- Most of the patients with OCD, develop secondary depression.
- It is the M/C Comorbidity associated with OCD.
- The lifetime prevalence for major depressive disorder in persons with OCD is 67%.

- Suicide attempts are also reported in up to one-quarter of individuals with OCD; the presence of comorbid major depressive disorder increases the risk.

HOW TO REMEMBER: OCD is a neurotic disorder and egodystonic . So, patient feel severe distress because of dystonicity and become depressed.

Reference:
Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Pagé No 418

Q. Vani, a 30year old female, had persistent feelings of anxiety and worry associated with insomnia, irritability, tension, and fatigue. Over the years, her friends and family rebuked her for "worrying too much," and she reported difficulty controlling her anxiety over her financial situation, job security, and her children's safety, despite evidence that none of these were problematic. Her husband reported that he found her persistent anxiety and ongoing need for reassurance "exhausting" and that he noticed himself withdrawing from her, which led to significant tension between them. Drug of choice for this disorder is:

A. Alprazolam
B. Buspirone
C. Venlafaxine
D. Beta – blockers

Answer: A
Solution

- Benzodiazepines are the drug of choice for generalized anxiety disorder.
- However, it must be remembered that benzodiazepines can cause dependence.
- The other drugs which can be used include SSRIs buspirone and venlafaxine.

NOTE: Beta blockers can control short term anxiety attacks like in phobias. They are not useful in long term treatment of anxiety as their action is more peripheral than central.

Reference:
Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 411

LEARNING OBJECTIVES

Substance Related & Addictive Disorders

- Dependence
- Harmful use
- Aetiology of biopsychological dependence
- Alcohol
  - Mellanby effect
  - Metabolism
  - Acute intoxication
  - Withdrawal symptoms
  - Alcohol induced disorders
    - → Wernicke's, encephalopathy
    - → Korsakoff syndrome
  - Evaluation for problematic alcohol drinking
    - → CAGE questionnaire
    - → AUDIT
    - → SADQ
    - → Diagnostic markers
  - Treatment
    - → Detoxification and maintenance of abstinence
- Opioids
  - Heroin
  - Intoxication
  - Withdrawal symptoms
  - Treatment
- Cannabis
  - Intoxication
  - Withdrawal symptoms
  - Cannabis related disorders
- Hallucinogens
  - LSD
  - Phencyclidine and ketamine
- Cocaine
  - Intoxication
  - Withdrawal symptoms and treatment
- Amphetamines
- Tobacco
  - Withdrawal symptoms
  - Treatment
    - → Nicotine replacement therapy
    - → Varenicline
    - → Bupropion

5 SUBSTANCE RELATED & ADDICTIVE DISORDERS

DEPENDENCE

- When consumption of substance takes much more precedence over all other activities of life.
- Criterion
  - Tolerance (Physical dependence)
    - → Increasing amount of substance is required for desired effect
  - Withdrawal symptoms (Physical dependence)
  - Craving
    - → Strong urge
    - → Inability to control substance taking behavior
  - Progressive neglect of alternative ways of pleasure
  - Continued use despite clear harmful consequence
  - Progressive neglect
- According to ICD 10 if 3/6 of above Symptoms present is dependence

HARMFUL USE

00:04:16

- Pattern of use causing damage to
  - Physical health damage
  - Mental health damage
  - Behavior leading to harm to health of others
- Single episode of harmful use
- Substance use disorder: DSM – 5
- Intoxication
  - Symptoms that develop after consumption of substance

ETIOLOGY OF BIOPSYCHOLOGICAL DEPENDENCE

00:06:25

- Brain reward pathway
  - Dopaminergic neurons from ventral tegmental area to nucleus accumbens
- Neurotransmitters
  - Opioids
  - Catecholamines (Dopamine)
  - GABA
- Genetic factors
- Reinforcement
  - Positive emotions
  - Relief from negative emotions
- Psychological factor
  - Pleasure / euphoria
- Social factors
  - Peer pressure
  - Easy availability
  - Social acceptance
- Personality type

ALCOHOL

00:10:08

- 1 standard drink = 10 ml of absolute alcohol = 7.8 gm of absolute alcohol
  - Specific gravity of alcohol = 0.78
- Spirits
  - 40% conc of absolute alcohol by volume
  - Whiskey, vodka, brandy, rum, gin etc.
- Beer (Strong): 8-11%
- Beer (Standard): 3-4%
- Absorption
  - 20% Stomach
  - 80% from Small intestine (Duodenum and jejunum)

Mellanby effect

- Intoxicating effects at a particular BAC are much more when BAC is going up compared to the BAC when coming down.

Reverse tolerance

- Secondary to decreasing levels of alcohol metabolizing enzyme
- Similar sensitization seen with cocaine, amphetamine, opioids, and cannabis due to changes in brain reward pathway

Metabolism

- 90% through oxidation in liver
- 10% excreted by kidney
- Breath analyzer
  - Alcohol concentration in alveolar capillary blood is in equilibrium with alcohol concentration in alveolar air
  - Estimation of the alcohol concentration in alveolar (expired) air gives good idea about the blood alcohol concentration
- Rate of oxidation
  - 7-10gram of alcohol an hour
  - Alcohol dehydrogenase (Acetaldehyde)
  - Aldehyde dehydrogenase (Acetate)

Acute Intoxication

00:16:46

- CNS depressant

BAC levels	Effects
20-30 mg/dl	• Slow motor performances • Decreased thinking ability • Legal limit: 30mg/dl
30-80 mg/dl	• Further worsening
80-200 mg/dl	• Incoordination • Emotional lability • Judgement errors
200-300 mg/dl	• Slurred speech • Nystagmus • Alcoholic blackout o Anterograde amnesia
>300 mg/dl	• Impaired vital signs • Possible death

- Alcoholic blackouts
  - Anterograde amnesia
  - At the time behaviour appears to be goal directed
  - No confusion seen
  - Next day patient don't remember anything

Withdrawal symptoms 00:21:40

After 6-8 hours	• Tremors (M/C) • Nausea • Vomiting • Restlessness • Mydriasis
After 12-24 hours	• Alcoholic hallucinosis o M/C Auditory
After 24-48 hours	• Alcohol withdrawal seizures o GTCS o clustered seizures
After 48-72 hours	• Delirium tremens • If untreated mortality rate is 20

- Delirium Tremens
  - Disorientations of consciousness
  - Disorientations to time/place/person
  - Hallucination
    → M/C visual
  - Cause tremors
  - Autonomic hyperactivity

Important Information

M/C hallucination in Alcoholic hallucinosis are auditory without disturbance of consciousness whereas M/C hallucination in delirium tremens are Visual hallucinations with disturbance of consciousness.

Previous Year's Questions

Q. A patient presented with history of visual hallucinations and disorientation. He was a chronic user of alcohol and last intake was a day's back? what is the likely diagnosis? Alcohol withdrawal delirium? (FMGE Aug 2020)

A. Alcohol withdrawal seizures
B. Alcohol withdrawal Delirium
C. Alcoholic hallucinosis
D. Schizophrenia

Alcohol induced disorders

- A.I psychotic disorders
- A.I sleep disorders
- A.I bipolar disorders
- A.I depressive disorders
- A.I anxiety disorders
- A.I sexual disorders
- A.I neurocognitive disorders
  - Long term use, amnestic syndrome
  - Wernicke's, encephalopathy
  - Korsakoff syndrome

00:26:52

Wernicke's, encephalopathy

- Acute
- Thiamine deficiency
- Clinical features
  - **G -** Global confusion
  - **O -** Ophthalmoplegia (M/C 6th cranial nerve-abducens)
  - **A -** Ataxia

How to remember

- GOA

- Treatment
  - High dose of parenteral thiamine
  - Sequence of recovery
    → Ophthalmoplegia > Global confusion > Ataxia (Partially recovers)

Important Information

In some cases of Wernicke's encephalopathy Ataxia does not recover completely (Partial recovery) it is called as residual ataxia

Korsakoff syndrome
- Chronic
- Amnesia
  - Anterograde (M/C) > retrograde
  - Difficulty in making new memories
- Learning difficulties
- Confabulations
  - False story made by patient to fill the gaps (Honest lying)
  - Treatment
    → Long term oral vitamin B1

Neuroanatomy
- Lesions are symmetrical
- Mammillary bodies
- Other sites
  - Thalamus
  - Hypothalamus
  - Midbrain
  - Pons
  - Medulla
  - Fornix
  - Cerebellum

Marchiafaya Bignami disease
- Demyelination of corpus callosum
- Epilepsy, ataxia, dysarthria, hallucination & intellectual deterioration

00:31:08

Evaluation for problematic alcohol drinking
- Screening
  - CAGE questionnaire
    → **C – Cut Down**
    → **A – Annoyed**
    → **G – Guilt**
    → **E – Eye Opener**
    → If 2 or >2 out of these 4 present in CAGE questionnaire: Patient is screening positive for alcohol
  - AUDIT
    → Alcohol Use Disorder Identification Test
    → This is also a screening questionnaire
  - SADQ
    → Severity of Alcohol disorder Questionnaire
    → Used to quantify
- Diagnostic markers
  - Help identify heavy drinkers
  - BAC (Blood alcohol concentration)
    → Usually breath analyzer
    → Widmark formula
  - Carbohydrate deficit transferrin
    → Most sensitive and specific lab test for identification of heavy drinking
  - GGT
    → Less sensitive and specific
    → Both CDT and GGT return to normal within days of stopping drinking
  - ALT & AST
    → ALT >>> AST (more specific)
    → Ratio of ALT and AST is a good marker for heavy alcohol consumption
  - MCV: Increased
  - Alkaline Phosphatase level (Damage to liver)

Treatment 00:36:46
- Detoxification
  - D.O.C benzodiazepines (Chlordiazepoxide)
  - Thiamine administration
  - CBZ can also be used
  - Oxazepam/Lorazepam
    → Short ½ life
    → Used in Liver damage
  - Duration of Detoxification is 7- 14 days

Important Information

Thiamine is administrated to the patient before giving any dextrose solution as thiamine is used in metabolism of dextrose thus leading to thiamine deficiency and underlying neurocognitive disorders

- Maintenance of abstinence: To prevent relapse
  1. Pharmacological agent
  - Deterrent agents (Aversive agents)
    → Disulfiram (Dilsulfiram ethanol reaction)
    → Metronidazole

→ Citrated calcium Carbamide
- Anticraving agents
  - → Naltrexone: metabolized by liver
  - → Acamprosate (NMDA Receptor antagonist): excreted by kidney
  - → Topiramate
  - → Baclofen
  - → Serotonergic agents like fluoxetine

2. Non-Pharmacological agent
   - Cognitive behavioral therapy
   - Motivational enhancement therapy
   - Alcoholic anonymous
     - → 12 steps self-help group
   - Family therapy
   - Group therapy

Previous Year's Questions

Q. A patient with history of chronic alcohol use was admitted and operated for acute appendicitis. After the surgery, patient appeared confused, and reported seeing snakes in the ward room. What is the likely diagnosis?

A. Alcoholic hallucinosis
B. Delirium tremens
C. Wernicke's encephalopathy
D. Korsakoff syndrome

Previous Year's Questions

Q. Disulfiram is a type of?

(FMGE Nov 2017)

A. Aversion therapy
B. Anticraving therapy
C. Detoxification
D. Opioid management therapy.

00:48:32

OPIOIDS

- Opiates
  - Psychoactive alkaloids (Morphine, codeine)
  - Derived from Papaver somniferum
- Opioids
  - Synthetic compounds that act like opiates

Heroin

- Diacetyl morphine
- M/C abused opioid: Heroin
- Street names
  - Smack
  - Brown sugar etc.
- White in colour
  - Therefore, charcoal cannot be used as adulterant.
- Routes of administration
  - Oral
  - Intranasally
    - → Chasing the dragon
  - I.V
    - → Mainlining: Moving from peripheral vessels to central veins in due course
  - Subcutaneous
    - → Skin popping

Intoxication

- Euphoria
- Initial euphoria followed by period of sedation (Nodding off)
- Clinical features
  - Slow respiration
  - Hypothermia
  - Hypotension
  - Bradycardia
  - Cyanosis
  - Pinpoint pupil
  - Cyanosis
- Overdose
  - Respiratory depression
  - Lethal
- Treatment
  - DOC: I/V naloxone
    - → Even intranasal has been approved

Withdrawal symptoms

00:55:25

- Starts in 6-8 hours of withdrawal
- Reach peak in 2-3 days
- Ends in 7-10 days
- Causes flu like symptoms
  - Lacrimation
  - Rhinorrhea
  - Sweating
  - Diarrhea
  - Yawning
  - Piloerection
  - Mydriasis
  - Body ache and insomnia
  - Hypertension
  - Anxiety
  - Tachycardia
- Treatment

00:58:17

  - Detoxification
    - → DOC-methadone, buprenorphine,

dextropropoxyphene (Long-acting opioids)
→ No euphoria and withdrawal symptoms
→ Clonidine / lofexidine can also be used

- Accelerated detoxification
  → Naltrexone (On giving opioid antagonist)
  ↓
  Precipitated severe withdrawal symptoms
  → Treatment: Clonidine
- Maintenance of abstinence
  → Opioid substitution therapy: Methadone and Buprenorphine
  → Naltrexone
- Psychotherapy (Narcotic anonymous)
- CBT, Family therapy, Motivation enhancement therapy etc. can also be used

CANNABIS

01:03:28

- Cannabis sativa Americana
- M/C used illegal Drug in India
- Active ingredient
  - δ-9 tetrahydrocannabinol (THC)
  - Potency is directly proportional to THC conc.
- Street names
  - Joint
  - Marijuana
  - Grass
  - Pot
  - weed etc.

Preparations	THC concentration
Bhaang (Dried	1%
Ganja (Inflorscence)	1-2%
Hashish/ Charas (Resinous exudates)	8-14%
Hash oil	15- 40%

Intoxication

- Euphoria
- Sense of slowing of time
- Sense of floating in air
- Reddening of conjunctiva
- Increased appetite
- Dryness of mouth
- Depersonalization, Derealization
- Synesthesia, illusions
- Bad trip

Withdrawal symptoms

- Irritability
- Depressed mood
- Sleep disturbances
- Headache

Cannabis related disorders 01:09:15

- Flashback phenomenon
  - Recurrence of cannabis use experience in the absence of any current use
- "Amotivational syndrome"
  - Loss of motivation in all domains of life
- Running amok
  - Extreme rage that may develop after cannabis intake in which patient may attack others indiscriminately
- Bad trips
- Mild withdrawal symptoms like irritability
- Cannabis induced psychotic disorders
- Treatment
  - Symptomatic and psychotherapy

Previous Year's Questions

Q. Which of the following drug is known to cause dependence is most commonly abused?

(NEET Jan 2020)

A. Cocaine
B. Heroin
C. Amphetamine
D. Cannabis

HALLUCINOGENS

01:12:24

- LSD
  - Lysergic acid diethylamide
  - Rave drug
- Mescaline,
- Psilocybin,
- Methylenedioxyamphetamines (MDMA, ecstasy)
- Phencyclidine (Angel dust),
- Ketamine

LSD

- Clinical Features
  - Depersonalization
  - Derealization
  - Synesthesia
  - Illusions
  - Bad trips

Phencyclidine and ketamine

- Dissociative anesthesia

- NMDA receptor antagonist
- Intoxication similar to schizophrenia
- Phencyclidine intoxication
  - Vertical & horizontal nystagmus
  - Aggressive
- Hallucinogens
  - Don't cause physical dependence
  - No tolerance
  - No withdrawal symptoms
  - Flashback phenomenon

COCAINE

01:16:50

- Erythroxylum coca
- Term by Sigmund Freud
- Was prepared as a Local Anesthetist
- Fast Na+ channel blocking properties
- Used in ENT surgery
- Blocks dopamine and norepinephrine receptors
  - Vasoconstriction strong: HTN/MI
  - Nasal septal perforation
  - Seizures
  - Jet black pigmentation of tongue
- Routes of administration
  - Snorting
  - Freebasing
  - Intravenous
  - Subcutaneous
- Speed ball = Cocaine + heroin

Intoxication

- Euphoria
- Sympathetic symptoms
  - Tachycardia
  - Palpitations
  - Hypertension
  - Sweating
  - Mydriasis
- Paranoid ideations + auditory hallucinations
- Tactile hallucinations or cocaine bugs or Magnan phenomenon or formication

Withdrawal symptoms

- Mild physical dependence
- Strong psychological dependence
- Feeling low tired
- Insatiable hunger
- Feeling depressed with suicidal ideations
- Cocaine induced psychotic disorder

Treatment

- Symptomatic and psychotherapy

Previous Year's Questions

Q. A patient with cocaine intoxication presents to the emergency department. which of the following is unlikely to be seen?

(NEET 2021)

A. Agitation
B. Bradycardia
C. Hyperthermia
D. Myocardial infarction

Previous Year's Questions

Q. A patient was admitted with complaints of tachycardia and arrythmia. O/E there were scratch marks on the skin. This patient is most probable causing substance is?

(FMGE 2021)

A. Cocaine
B. Heroin
C. Cannabis
D. Alcohol

Previous Year's Questions

Q. Jet black pigmentation of tongue with tactile hallucinations is a feature of?

(FMGE Jun 2018)

A. Heroin
B. Opium
C. Alcohol
D. Cocaine

Previous Year's Questions

Q. Magnan Symptom are associated with which substance?

(NEET Jan 2020)

A. Cocaine
B. Cannabis
C. Amphetamine
D. Alcohol

AMPHETAMINES

01:22:54

- Euphoria
- Enhanced performance
- Improve concentration and duration of work
- Commonly used amphetamines are
  - Dextroamphetamine
  - Methamphetamine
  - Methylphenidate
    - → Amphetamine like compound
    - → Used for treatment of ADHD
- Amphetamine induced psychotic disorder

TOBACCO

01:23:42

- Most common substance used in India
- Beedi most common followed by cigarettes
- Active Ingredient: Nicotine
  - Stimulant
- Cardiovascular disorders
  - Nicotine
  - CO

Withdrawal symptoms

- Within 2 hours
- Peak in 24-48 hours
- Clinical features
  - Irritability
  - Poor concentration
  - Anxiety
  - Restlessness
  - Bradycardia
  - Drowsiness but paradoxical insomnia
  - Increased appetite, wt. gain
  - Depression

Treatment

- Nicotine replacement therapy
  - Saves patient from other harmful substances in smoke like Tar, Carbon monoxide, hydrocarbons etc.
  - Nicotine chewing Gums and lozenges
  - Nicotine sprays
  - Nicotine Patches
  - E-cigarettes
    - → Instead of burning and smoke nicotine is inhaled in vaporized form
    - → Recent studies shows no benefit of e-cigarettes over regular cigarettes
- Medications
  - Varenicline
    - → Partial agonist at α4β2 nicotinic acetylcholine receptors and α7 nicotinic acetylcholine receptor.
    - → Partial agonist action Prevents high and reinforcement and also craving and withdrawal symptoms like Nausea, insomnia and Suicidal thoughts
  - Bupropion
    - → Norepinephrine Dopamine reuptake inhibitor (NDRI)
    - → Anti-depressant
  - Clonidine
  - Nortriptyline

Important Information

- **In ICD 11 Gaming disorders and Gambling disorders have been added to substance related & addictive disorders**

CLINICAL QUESTIONS

Q. An alcoholic patient comes to your office, he can not tell his name. There is gross in coordination in walking, and his eyes are deviated to one side. What is the probable diagnosis?

A. Wernicke's encephalopathy
B. Korsakoff's psychosis
C. Alcoholic hallucinosis
D. Delirium tremens

Answer: A

Solution

Here there is history of ataxia (in coordination) and ophthalmoplegia. The inability to tell name might be because of confusional state. The likely diagnosis is Wernicke's encephalopathy.

Wernicke's, encephalopathy

- acute
- Thiamine deficiency

G - Global confusion
O - Ophthalmoplegia (m/c 6th cranial nerve- abducens)
A - Ataxia
Rx- High dose of parenteral thiamine.

option c and d -

- After **8-12hrs**: alcoholic hallucinosis (auditory) **m/c**
- During first **72 hrs but may develop any time in the first week: delirium tremens**, if untreated mortality rate is 20%

HOW TO REMEMBER : withdrawl features and time - eighT = Tremors, 11= ha11ucinations, 22=SeiSure, TRemes= within ThRee days

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 632

Q. A 30-year-old male living in a hostel for homeless people with alcohol problems asked staff for his usual drug. He had a 10-year history of extreme alcohol-related problems including withdrawal symptoms of morning tremulousness, sweating, nausea and vomiting, but not alcohol-induced seizures. What is the drug of choice for his problem ?

A. Haloperidol
B. Chlordiazepoxide
C. Naltrexone
D. Disulfiram

Answer: B

Solution

- Benzodiazepines are the drug of choice in alcohol withdrawal.
- If the question asks to choose a specific benzodiazepine, the best choice would be chlordiazepoxide as it has less abuse potential.

Mechanism : Binds to benzodiazepine receptors at the GABA-A ligand-gated chloride channel complex

- Enhances the inhibitory effects of GABA
- Boosts chloride conductance through GABA-regulated channels
- Inhibits neuronal activity presumably in amygdala-centered fear circuits to provide therapeutic benefits in anxiety disorders

option c - used for treating opioid dependence.
option d - is anti craving treatment used in alcohol management.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 630

LEARNING OBJECTIVES

Organic Mental Disorder

- Definition and symptoms
- Five levels of consciousness
- Delirium
- Dementia
  - Reversible dementias
  - Cortical dementias
  - Sub-cortical dementia
  - Alzheimer's disease (dementia of Alzheimer type)
    - → Pathophysiological and microscopic findings
    - → Genetics of Alzheimer's d/s
  - Vascular dementia
  - Lewy body dementia
  - HIV related to dementia
  - Frontotemporal dementia
  - Management of dementia
- Amnestic disorders
- Frontal lobe syndrome

6 ORGANIC MENTAL DISORDER (NEURO COGNITIVE DISORDER)

ORGANIC MENTAL DISORDER

00:01:14

- Definition
  - Demonstrable cerebral disease, brain Injury or other causes leading to cerebral dysfunction.
- Symptoms may Include:
  - Cognitive Impairment
    - → Cognition refers to all Mental processes that are utilized to gain knowledge
    - → Include Memory, Language Orientation, Judgement etc.
    - → Also called as Cognitive Disorder
  - Disturbance of Consciousness
    - → Confusional state
    - → Clouding of Consciousness
    - → Altered Sensorium
  - Hallucinations
    - → Mainly Visual
  - Delusions
    - → Usually transient
    - → Complex delusions are rare.

Five Levels of Consciousness

00:04:40

- Alertness
  - Awake
  - Aware of Internal & External stimuli
  - can respond to it
- Lethargy
  - Somnolence
  - Not fully alert
  - Can't give close Attention
  - If not actively stimulated, drifts into sleep
- Obtundation
  - Difficult to arose
  - When aroused, appears confused
  - Constant stimulation required for even minimal cooperation from Pt
- Stupor (Semi coma)
  - No spontaneous response
  - Akinetic & mute.
  - If persistent & vigorous stimulation given, may groan or mumble
- Coma
  - Complete unawareness
  - Cannot be stimulated
  - Eyes are closed

Terminology

- Torpor
  - Lowering of consciousness
  - Short of stupor
- Twilight State
  - Dream like state
  - Also called as oneiroid state
  - Awareness is restricted
  - It corresponds to obtundation stage

DELIRIUM

00:05:19

- M/C organic mental disorder with an acute onset
- More common in elderly patients
- Patients with medical & surgical disorder & hospitalized
  - Hip #, open heart surgery
  - severe burns
  - Infections like pneumonia
  - post-operative patients
  - critically ill patients.
- Alcohol withdrawal & sedatives withdrawal
- On multiple medications
  - Especially with anticholinergic action
- Sensory deprivation
  - E.g. Black patch delirium: After cataract surgery

Symptoms

- Disturbances of consciousness
- Disorientation to time, place & person
  - Orientation returns back in reverse order
- Perceptional disturbances like illusions & hallucinations
- Transient delusions
- Impairment of attention
- Memory disturbances
  - Recent & immediate memory disturbed
  - Remote is intact
- Agitation (or hypoactivity)
- Autonomic disturbances
  - Difficult to detect because patient is hypoactive
- Sleep wake cycle disturbances
- Sundowning
  - As sun goes down (Evening) the symptoms worsen
- Floccillation's (Carphologia)

- Aimless picking behavior
- Occupational delirium

Important Information

- Delirium
  - Sudden onset & fluctuating course
  - Neurotransmitter: Ach
  - Tract involved in delirium: RAS (Reticular Activating system)

Diagnosis

- Clinical
  - MMSE (Mini Mental Status Examination) & MSE used to measure cognitive impairment
  - Confusional assessment method to identify patients with delirium
- EEG

MMSE (Mini Mental Status Examination) 00:18:27

- Assesses Five Cognitive Functions
  1. Orientation
     → 10 points
     → Years, season, month, date, day, country state, town, hospital, Floor
  2. Registration of information
     → 3 points
  3. Recall
     → 3 points
  4. Attention & Concentration
     → 5 points
     → Serial 100-7
  5. Language 9 points
     → Spell 'WORLD'
- Scoring
  - Total = 30
  - Max score = 30
  - Less than 24: Indicate cognitive impairment

EEG

- Generalized slowing on EEG
  - Exception: Delirium D/T alcohol and sedatives withdrawal
    → Low voltage fast activity

Treatment

- Treat cause
- Benzodiazepines
- Antipsychotics

Previous Year's Questions

Q. Most common acute organic mental disorder?

(FMGE Dec 2018)

A. Delirium
B. Dementia
C. Amnesia
D. Anxiety Disorder

00:24:50

DEMENTIA

- Progressive impairment of cognitive functions, in the absence of any disturbance of consciousness
- DSM-5- Major neurocognitive disorder
- Prevalence: Increases with age.

Symptoms

- Cognitive Impairments
  - **A - Amnesia**
    → Memory Disturbances
    → Recent → Immediate → Remote
    → Episodic memory, semantic memory and visuospatial Skills impaired
    → Episodic memory loss from recent to remote
    → Semantic memory: Memory for facts such as rules, words & language. Lost later.
    → Visuospatial skill deficits: Disorientation in strange & later familiar environment
  - **A - Aphasia**
    → Disturbances of language function.
    → Starts with word Finding difficulties & progresses
  - **A - Apraxia**
    → Difficulty In performing learned motor movement.
  - **A - Agnosia**
    → Inability to interpret a sensory stimulus
    → Disturbance In executive function (Planning & organization)

How to remember

- 4 A's

Important Information

- Agnosia: Inability to interpret a sensory stimulus
- Prosopagnosia: Inability to identify faces

- Behavioral & Psychological Symptoms of Dementia (BPSD)
  - Personality changes
    - → Introvert
    - → Apathy
    - → Inappropriate
    - → Hostile
    - → More so in frontal & temporal lobe involvement
  - Delusions and hallucinations
  - Anxiety, depressive symptoms
  - Catastrophic Reactions
    - → Awareness of intellectual deficits in a stressful situation causing an emotional outburst
- Focal neurological deficit
  - Usually in vascular dementia.
  - E.g., Extensor plantar response etc.

Reversible dementias

- Around 15% of total
- Neurosurgical conditions
  - Subdural hematoma
  - Normal pressure hydrocephalus
  - Intracranial tumors or abscess
- Infectious causes
  - Meningitis
  - Encephalitis
  - Neurosyphilis
  - Lyme's disease
- Metabolic Causes
  - Vit B12 and folate deficiency
  - Niacin deficiency
  - Hypo & hyper parathyroidism
  - Hypo & hyperthyroidism.
- Others
  - Drugs
  - Toxins
  - Alcohol abuse
  - Autoimmune encephalitis

Cortical dementias 00:38:24

- Early presentation of 4A's
  - Amnesia
  - Apraxia
  - Aphasia
  - Agnosia
  - Acalculia
- Alzheimer disease
- Creutzfeldt Jacob disease
- Picks disease & other Frontotemporal dementia.

Sub-cortical Dementia 00:39:51

- Involves sub-cortical structures (Like basal ganglia, cerebellum, brain stem nuclei) first
- Present with motor symptoms (E.g., tics, chorea, dysarthria) executive function disturbance and BPSD First
- E.g.: Parkinson's D/s Wilson's D/s Huntington's D/s, Progressive supra-nuclear palsy
- Mixed presentation: Vascular dementia, Dementia with Lewy body

ALZHEIMER'S DISEASE (DEMENTIA OF ALZHEIMER TYPE) 00:40:52

- M/C Type
- Prevalence Increases with age around 5% for age 65 years & above
- Around 20-30% for age above 85 years
- Late onset – Female: Male (2 or 3:1)
- Early onset familial forms (Autosomal dominant)
- Insight is lost early
- Cortical dementia
  - Present with 4A's early
  - Executive functioning disturbances initially
- Later stages
  - Neurological defect such as tremors, spasticity or rigidity may develop

Pathophysiological Findings

- Diffuse atrophy, flattened cortical sulci & dilated cerebral ventricles
- Primarily involve parietal and temporal lobes
- Atrophy starts In medial temporal lobe (Entorhinal/ perirhinal cortex & hippocampus)
- Spreads to lateral & medial parietal lobes, lateral temporal lobes & lateral frontal cortex

Microscopic Findings

- Senile plaques or Neuritic plaques or Amyloid plaques
  - Extracellular in location
  - Amyloid precursor protein (APP)
    - → Cleaved by beta & gamma secretase
  - Aβ protein
    - → When APP cleaved by beta secretase forms Aβ protein
    - → Aβ protein combines to form fibrils
    - → Found in all cortical areas & also in cerebellum & striatum
    - → Aβ deposits in vessel walls in force of cerebral amyloid angiopathy
  - Plaques can be present in elderly with AD
- Neurofibrillary Tangles
  - Intracellular deposits
  - Tau proteins
  - Found in cortex & hippocampus but spares cerebellum
  - Amount & distribution of NFT's correlates with the

severity and duration of alzheimer dementia
  - Tau levels also increases in CSF: Possible bio marker
  - Can be present in elderly without Alzheimer's
  - Neuropathological diagnosis of AD
    → Extensive presence of both senile plaques & NFT
- Granulovacuolar degeneration & Hirano bodies (Eosinophilic inclusions)
  - Abnormalities in cytoplasm of hippocampal neurons
  - Can be present in elderly without dementia's

Important Information

- Commonly used criteria: National Institute of Neurological & Communicative Disorders & stroke & Alzheimer's D/s & related Disorders association (NINCDS – ADRDA Criteria)

Amyloid cascade hypothesis
- Mutations in APP gene
- Favors cleavage by beta & gamma secretase doesn't yield Aβ.
- Aβ combines to form oligomers & finally plaques
- Aβ also induces phosphorylation of Tau protein.
- Highly phosphorylated tau protein is not able to stabilize microtubules, which results in granulovacuolar degenerations of neurons, neuronal loss & synaptic loss

Neurochemistry
- Loss of cholinergic Neurons in Nucleus basalis of Meynert
- Serotonin & NE also lost

Genetics of Alzheimer's D/s 00:53:29
- Early onset in familial Alzheimer's d/s
- Mutations in three genes
  - Amyloid precursor protein (Chr 21)
  - Pre Senilin 1 (Chr 14)
  - Pre Senilin 2 (Chr 1)
- Sporadic & late onset Alzheimer's D/s – Apo E4 Allele of Apo E4 Gene is associated with risk
- Patients with Down syndrome have significantly higher risk

Risk factors
- Age
- Head injury, HTN, insulin resistance, depression
- High education levels & active mentally & physically are protective
- Smoking is protective (Controversial)

Vascular dementia 00:57:45
- Multiple cerebral infarcts
- Acute exacerbations which correspond to new infarcts
- Stepwise deterioration, called stepladder pattern
- General symptoms of dementia are present
- Focal neurological deficits that correspond to site of infarction
- Hypertension, DM, smoking, other risk factors.

Important Information

- Criteria for VASCULAR DEMENTIA
  - NINDS- AIREN Criteria
    → National Institute of Neurological Disorder & Stroke (NINDS) & the Association Internationale pour la Recherche et lEnseignement en Neurosciences. (AIREN)]

Binswanger's dementia
- 2nd most common type
- Sub-cortical arteriosclerotic encephalopathy
- Multiple small white matter infarcts
- Sub-cortical dementia

Lewy body dementia 01:00:29
- Dementia with Lewy Body
- Similar to Alzheimer's disease but have different symptoms
- Fluctuating levels of attentions & alertness
- Recurrent visual hallucinations
- Parkinsonian features

Huntington's d/s, Parkinson's d/s, Wilson's d/s & multiple sclerosis
- Predominantly motor symptoms
- Later development of dementia
- Sub-cortical type

HIV related to dementia
- Lab evidence of HIV infections
- Cognitive deficits & motor symptoms
- Personality changes

Head trauma related dementia/Dementia pugilistica/Punch drunk syndrome
- Dementia as a sequelae of head trauma

Frontotemporal dementia
- Multiple different reasons
- Early onset (45-65yrs)
- Mostly behavioral symptoms with relative preservation of memory

3 Distinctive clinical presentations

- Frontal variant
  - Primary frontal lobe dysfunction with symptoms of apathy, disinhibition, stereotypic behavior
- Semantic Dementia
  - Primarily temporal lobe dysfunction with symptoms such as loss of memory for words
- Progressive Non fluent aphasia's
  - Speech non fluency & word finding difficulties.

Important Information

- **Pseudodementia: Depression in elderly, resembles dementia**

01:04:48

Management

- Screening Test
  - Mini Mental status Examination
- Treatment
  - Cholinesterase inhibition
    - → Donepezil
    - → Rivastigmine
    - → Galantamine
    - → Tacrine
  - Memantine: NMDA Antagonist
    - → Decrease activity of glutamate
    - → For BPSD

Important Information

- **Anti-psychotic increases mortality rate in patients with dementia by increasing CHF, sudden death, & infections such as pneumonia**

01:06:28

AMNESTIC DISORDERS

- Present with amnesia (Anterograde & retrograde)
- Short term & recent memory usually impacted remote, memory & immediate memory preserved

Major Causes

- Thiamine deficiency
- Hypoglycemia
- Primary brain conditions (Head trauma, seizures, cerebral tumor, CVD, ECT, MS, hypoxia)
- Substances (Alcohol, BZD)

FRONTAL LOBE SYNDROME

01:07:38

- Also known as Frontal lobe personality
- Disturbances of frontal lobe

Orbito-frontal Syndrome

- Disorder of orbito-frontal cortex
- Symptoms
  - Behavioral disinhibition
  - Impulsivity
  - Lack of insight & poor judgement

Dorsolateral Syndrome

- Disorder of dorsolateral prefrontal cortex
- Symptoms
  - Apathy, lack of motivation
  - Poor attention, concentration, psychomotor retardation
  - Symptoms mimic depression

Anterior Cingulate Syndrome

- Executive function abnormalities

	Delirium	Dementia
Onset	Sudden onset	Insidious onset
Consciousness	Disturbances of consciousness	Not present
Course	Fluctuating course	Progressive course

CLINICAL QUESTIONS

Q. A 40-year-old uneducated woman who is a Down visited a clinic in her village with her father because she had developed feelings of anxiety and sleep disturbance. Her MRI showed sufficient neuritic plaques and neurofibrillary tangles for a neuropathologically based diagnosis of Alzheimer's disease.'Area of brain resistant to neurofibrillary tangles in Alzheimer's disease:

A. Visual association area
B. Entorhinal cortex
C. Lateral geniculate body
D. Cuneal gyrus area VI/temporal lobe

Answer: C

Solution

- Histopathological studies have shown that neurofibrillary tangles are rarely present in lateral geniculate bodies
- Neurofibrillary tangles : These are intracellular deposits made up of Tau proteins
- Amount & distribution of NFTs correlates with severity, distribution of Alzheimer
- NFTs are found commonly in following areas:
  1. Cortical neurons (esp entorhinal cortex)
  2. Hippocampus
  3. Amygdala
  4. Basal forebrain
  5. Raphe nuclei

FACT : LGB is related to light pathway. MGB is related to auditory pathway. L for Light and M for Music.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 706

Q. A 60-year-old man presented with progressive difficulty in recognising familiar faces, such as those of coworkers. He did not have any weakness, parkinsonism, bulbar symptoms or alien limb phenomenon. There was no family history of any significant illness and there was no history of any trauma or psychiatric illness. MRI showed marked right temporal anterior atrophy, with particular involvement of the right anterior fusiform and parahippocampal gyrus.Frontal and parietal lobes were relatively spared. True regarding FTD are all except:

A. Semantic dementia
B. Non-fluent aphasia
C. Apathetic, disinhibited personality
D. Rapid onset static course

Answer: D

Solution

The **frontotemporal dementias** have a progressive course and not static course.

It is usually of early onset (45 -65 yrs)

Patient presents with behavioral symptoms with relative preservation of memory.

It has **three** distinctive clinical presentations-

- Frontal variant
- Semantic dementia
- Progressive Non fluent aphasia

HOW TO REMEMBER : Frontal lobe has Broca's area. Damage to Brocas area cause Broken words. Therefore, non-fluent aphasia as it is the motor area of speech. Temporal part damage cause dementia. Temporal lobe is the Temple of memory.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 709

Harrison's Principles of Internal Medicine, 20th edition, Page No 3115

Q. Tara, a 50-year-old T.V star allegedly hit a man with her car, was brought to the emergency department by ambulance ; she had dilated pupils, hypertension, hyperthermia, and runny nose with nose bleed. On arrival she was agitated. Vital signs were as follows: temperature 41.8°.,13 (107 ° F) rectally, blood pressure 140/90 mm Hg, heart rate 140 beats/min, respirations 28 per minute; She was threatening hospital staff if toxic screen is done on her. However, she was restless and talking to herself and complaining of hospital maintenance saying that she can feel small insects crawling under her skin. Which of the following suggest a psychotic rather than an organic disorder?

A. Confusion

B. Complex delusions

C. Impairment of consciousness

D. Lack of insight

Answer: B

Solution

- The complex delusions are frequently seen in psychotic disorder.
- In organic mental disorders, the delusions are usually transient and fragmented. Presence of complex delusions in organic mental disorder is very rare.
- The lack of insight is a feature of both whereas confusion and impairment of consciousness is seen in organic mental disorders.

HOW TO REMEMBER: Organic disorders have objective evidence. So, they can be explained better than Psychotic disorders. Psychotic disorders are complex to understand. Complex delusions are seen in Psychotic disorders.

Reference:

Fish's Clinical Psychopathology, 4th edition, Page No 48

LEARNING OBJECTIVES

Personality Disorders

- Five personality traits
- Personality disorders
  - Cluster A -pd
    - → Paranoid pd
    - → Schizoid pd
    - → Schizotypal pd
  - Cluster B personality disorders
    - → Histrionic pd
    - → Narcissistic pd
    - → Antisocial pd (dissocial pd)
    - → Borderline pd (emotionally unstable pd)
  - Cluster C- personality disorder
    - → Avoidant (anxious) pd
    - → Dependent pd
    - → Obsessive compulsive pd (anankastic pd) (OCPD)
- Classification of personalities
  - Type A personality
  - Type B personality
- Impulse control disorder

7 PERSONALITY DISORDERS

- There are 5 personality traits (Parameters) 00:00:45
  - O - Openness to experience
    - → Novelty seeking
    - → sensation seeking
  - C - Conscientiousness
    - → Disciplined
    - → Dutiful and organized
  - E - Extraversion
    - → Outspoken
  - A - Agreeableness
    - → Cooperative to others
  - N - Neuroticism
    - → Tendency to experience negative emotions
    - → Emotional instability

How to remember

- OCEAN

PERSONALITY DISORDERS 00:04:58

- Prevalence in 10%- 20%
- Onset is in adolescence
- Maturing of phenomenon may occur by 40s
  - Resolution of maladaptive behaviours
- Ego syntonic
  - They don't want to change
  - Ego syntonic: Desirable
  - Ego dystonic: Undesirable
- Divided by DSM into three cluster
  - Cluster A, B and C

CLUSTER A -PD 00:07:44

- Considered to be on a schizophrenia continuum

Paranoid PD

- Suspiciousness in individual
- Excessively sensitive
  - May get offended by even jokes
- Give excessive importance to self
- Keep grudges
  - They don't forget and forgive
- Believe in conspiracy theories
- Management
  - Psychotherapy
  - Benzodiazepines
  - Antipsychotics

Schizoid PD

- Prefer solitary activities
- Lost in daydreams and fantasies
- Emotionally cold and detached
- Indifferent to praise or criticism
- Little interest in sexual activities
- Management
  - Psychotherapy
  - Benzodiazepines
  - Antipsychotics
  - Antidepressants

Previous Year's Questions

Q. A person who is shy, emotionally cold, shunning close relationships, introspective and prefers solitary activities, resides alone. There are no delusions and hallucinations, which personality disorder as he likely to be associated into?

(AIIMS May 2018)

A. Schizoid personality disorder
B Paranoid personality disorder
C. Emotionally unstable personality disorder
D. Antibody personality disorders

Schizotypal PD

- Odd and eccentric thinking and behavior
- Magical thinking (Sixth sense)
- Strange ways of communication
  - May be difficult to understand
- Decompensate in period of stress
  - Fleeting psychotic symptoms
- Illusions and momentary hallucinations
- Lack of close relationships
- Management
  - Psychotherapy
  - Benzodiazepines
  - Antipsychotics
- ICD-11: Classified as a Psychotic disorder

CLUSTER B PERSONALITY DISORDERS

00:14:05

Histrionic PD

- Dramatic and exaggerated emotions
- Need to be the center of attention (Attention seeker)
- Behave in sexually seductive way and use physical appearance to get attention
- Management
  - Psychotherapy
  - Antidepressants

Narcissistic PD

- Excessive self-importance (Grandiose)
- Belief about being special and talented
- Fantasies of unlimited success and power
- Poor tolerance to criticism
- Underlying fragile self esteem
- Management
  - Psychotherapy
  - Antidepressants

Antisocial PD (Dissocial PD)

- Unlawful behavior
- No regards for rights of others and do violations
- Lack feelings of guilt and remorse
- Substance use disorders
- Management
  - Psychotherapy
  - Antipsychotics
  - Carbamazepine
  - Beta blockers

Previous Year's Questions

Q. Which of the following is not associated with antisocial personality?

(PGI May 2018)

A. No feeling of Guilt
B. Unstable and intense interpersonal relationship
C. No care about feeling of other
D. Recurrent self-injurious behaviour
E. Disrupted self-image

Borderline PD (Emotionally unstable PD)

- Emotional instability
- Impulsivity (They do things in the heat of the movements)
- Intense but unstable relationships, chronic feeling of emptiness
- Self-injurious behavior
- Identity disturbances & Unstable self-image
  - Suddenly change life goals, values, career plans, sexual identity)
- Splitting
  - E.g.: Label thinks/person as good/evil
- Management
  - Psychotherapy (Dialectical behavior therapy)
  - Antidepressants
  - Antipsychotics
  - Carbamazepine

Previous Year's Questions

Q. Recurrent suicidal tendency, aberrant interpersonal relation skip, black and white phenomena are are characteristic of?

(JIPMER Nov 2017)

A. Borderline personality
B. Schizotypal personality
C. Histrionic personality
D. Narcissistic personality

CLUSTER C- PERSONALITY DISORDER

00:24:06

Avoidant (Anxious) PD

- Excessive sensitivity to rejection, criticism
- Fear of being criticized or not accepted by other
- Avoid social activities, anxiety
- Management
  - Psychotherapy
  - Beta blockers
  - SSRIs

Dependent PD

- Let other take decisions of their lives
- Need reassurance for mundane decision too
- Uncomfortable when alone
- Management
  - Psychotherapy
  - Beta blocker
  - SSRIs

Obsessive Compulsive PD (Anankastic PD) (OCPD)

- Preoccupied with rules and regulations

Important Information

- Obsessions and compulsions are feature of OCD and not OCPD

- Excessively organized
- Perfectionism that slows them down
- Stubborn and inflexible
- No time for leisure, no sense of humor, very formal
- Management
  - Psychotherapy
  - SSRIs

ICD-11

- Make the diagnosis of personality disorder according to the criteria
- Mild, moderate, severe (By symptoms and severity)
- Specifier: 'Prominent Personality Trait'
- E.g.-moderate personality disorder (Dissociality in personality disorder)

CLASSIFICATION OF PERSONALITIES

00:29:54

- Type A Personality
  - Competitive
  - Time urgency
  - Anger and hostility
  - Impatient
- Type B Personality
  - Easy going and relaxed
  - Lower chances of CAD
- Type D Personality
  - Negative affectivity
  - Social inhibition

Important Information

- **More risk of coronary heart disease in persons with Type A & Type D personality**

IMPULSE CONTROL DISORDER

00:31:00

- Impulse to perform a particular act which is harmful to self or others.
- Feeling of increasing tension and arousal
- After performing behavior, sense of relief or gratification, later guilt

Impulse control disorder	Characteristics
• Pyromania disorder	• Impulse to put things on fire
• Kleptomania	• Rich people have impulse to steal
• Intermittent explosive disorder	• Impulses of aggression
• Compulsive sexual behavior	• Impulsively go for sexual behavior
• Oniomania	• Impulse of shopping
• Trichotillomania	• Irresistible urge to pluck hair

- Treatment
  - Psychotherapy
  - SSRIs.

Previous Year's Questions

Chromosome make up of tall individual with criminal behaviour?

(JIPMER Nov 2017)

A. XYY
B. XYY
C. XXXY
D. XXYY

CLINICAL QUESTIONS

Q. Mr. Ray, a 21-year-old oddly clothed engineering student of middle-class socioeconomic status and urban background, presented to clinic with an insidious onset and continuous course of illness of 5 years' duration characterized by odd and eccentric behavior, oddities in speech, avoidance of social situations, deteriorating academic performance, idiosyncratic repetitive behaviors, and magical thinking. Which type of personality disorder does he belong to?

A. Schizoid
B. Paranoid
C. Schizotypal
D. Borderline

Answer: C

Solution

- Odd behavior including odd speech, mannerism and magical thinking is seen in Schizotypal personality disorder.
- This disorder is a part of Cluster A Personality disorder.
- Schizotypal PD also has a strange way of communication and decompensate in period of stress.
- Other types of cluster A personality personality disorder are Paranoid PD and Schizoid PD.
- Cluster B PD has four types- Histrionic PD , Narcissistic PD, Antisocial PD and Borderline PD.
- Cluster C PD has three types- Avoidant PD , Dependent PD, Obsessive Compulsive PD

How to remember:

OC- **O**dd and e**C**centeric

E-Emotional

AN-ANxious

- schizo-"TYPal" : imagine a TYPe-writer. It is used to write fantasy and magical stories

In ICD-10, Schiztypal personality disorder is included in Schizophrenia and other psychotic disorders group with code F21.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 748

Q. A 17 year old girl studying her 12th class was accused of stealing by her classmates. On checking her bag by the college authority they found items that included candles, crayons, children's scissors, bottles of ink, coloured papers, earrings, batteries and she kept these items in a cupboard at hostel and some in her bag. She was suspended by the college authority for a month. When she returned back she informed the Principal that she needs their support as she was diagnosed Kleptomania after getting checked which is a type of:

A. Delusional disorder
B. Obsession
C. Impulse disorder
D. Compulsion seclusion
E. Hallucination

Answer: C

Solution

Kleptomania is an impulse control disorder in which the patient has recurrent irresistible desire to steal objects, which he/she doesn't need for personal use or for monetary value.

In Impulse control disorder patient has urge to perform a particular act which is harmful to self and others and after performing the act he feels sense of relief or gratification , and later guilt.

How to remember : Kleptes = thief in greek. almost everyone is or knows somebody who steals **K**eychains in giftshops

Examples of impulse control disorders-

- Pyromania(impulse to put things on fire)
- Intermittent explosive disorder(impulses of aggression)
- Oniomania(impulse of shopping)

How to remember : onio(ns) are costly.
we get them from local **shops** instead of malls.

- Trichotillomania(irresistible urge to pluck hair) (in DSM-5, it was placed in obsessive compulsive and related disorders spectrum)
- Compulsive sexual behavior disorder(impulsively go for sexual behavior)

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 611-612

LEARNING OBJECTIVES

Eating Disorders

- Anorexia nervosa
  - Characteristics
  - Restricting type and binge eating / purging type of anorexia nervosa
  - Treatment
- Bulimia nervosa
- Binge eating disorder
- Avoidant restriction food intake disorder

8 EATING DISORDER

ANOREXIA NERVOSA

00:00:23

- A normal girl looks at herself in the mirror and she see a fat girl
- She tries to become normal according to her internal standards which in reality is extremely thin

Characteristics

- Disturbance of body image
- Excessive fear of weight gain despite being very thin
- Restriction of energy intake resulting in significantly less weight than normal
  - According to ICD-II BMI < 18.5 kg/m^2
  - Severity is decided according to BMI
- Medical signs and symptoms of starvation
  - Amenorrhea
  - Lanugo (Neonatal hairs)
  - Hypothermia
  - Dependent edema and
  - Bradycardia
- Mostly seen in adolescent females.
- Poor sexual development (Adolescent), low interest in sexual activities (Adults)
- Endocrine abnormalities
  - Decreased FSH, LH, CRH
  - Increased cortisol
- Peculiar behavior about food
  - They do many things with foods, but they will not eat
- Secretive and deny any symptoms
  - They refuse to accept that they have problem

Important Information

- **Term Anorexia nervosa is Misnomer as there is no anorexia in anorexia nervosa**

Subtypes

1. Restricting type
   - Seen in 50% cases
   - Primary feature is restriction of calorie intake
2. Binge eating / purging type
   - Eating a lot of Food in a small duration
   - Kind of trying to take it out

Treatment

00:10:52

- Difficult, Because Patient refuse to accept that they have the problem.
- Sometimes symptoms reach to certain extent that you have to hospitalize the patient
- Indication of hospitalization
  - Dehydration
  - Electrolyte imbalance
  - Significant weight loss
  - Weight for height is less than 80% of normal
- Behavioral therapy
- Giving normal diet suddenly leads to dilatation of stomach, so increase the calories gradually
- SSRIs, TCAs, cyproheptadine
- Check for Purging (At least 2-hour observation), in case of failure to gain weight

Previous Year's Questions

Q. A young girl hospitalized with anorexia nervosa is on treatment Even after taking adequate food according to the recommended diet plan for last week, there is no gain in weight. what is the next step in management?

(AIIMS Nov 2019)

A. Increased fluid intake
B. Observe patient for a hours after meal
C. Increase dose of anxiolytics
D. Increase the caloric intake from 1500 kcal-2000 kcal per days

Previous Year's Questions

Q. All are true regarding anorchia nervosa except?

(JIPMER May 2019)

A. Anorexia has one of the highest morbidities amongst mental disorder.
B. In DSM-5, severity is based on BMI values.
C. In DSM-5, diagnostic criterion is BMI less than 17.5 or weight is less than 85% of expected.
D. Patient doesn't care about weight gain.

BULIMIA NERVOSA

00:13:59

- Can be considered as failed attempt at anorexia nervosa.
- Seen in females, late adolescence
- Episodes of binge eating
  - A large amount of food is ingested in a small period of time
- Followed by inappropriate ways of stopping weight gain.
  - Purging
  - Self-induced vomiting
  - Laxatives
  - Diuretics/emetics
  - Hypergymnasia
- Fear of gaining weight
- Purging
  - Dental caries (Enamel erosions)
  - Callous on knuckles
  - Parotitis (Salivary gland inflammations)
  - Hypokalemia and hypochloremic alkalosis
  - Rarely Esophageal or gastric tear during forceful vomiting
- Normal sexual functioning
- Not secretive

Important Information

- **In Bulimia nervosa weight is usually normal whereas weight is lesser than normal in anoxia nervosa**

Treatment

- Cognitive behavioral therapy
- SSRI

BINGE EATING DISORDER

00:19:20

- Most common eating disorders
- Only binges, no compensatory behavior
- Overweight

Treatment

- Similar to bulimia nervosa

Important Information

- **All eating disorders are more common in females**

AVOIDANT RESTRICTION FOOD INTAKE DISORDER

00:20:21

- Patients avoid/restrict the food
- ICD-II and DSM -5
  - Insufficient intake of quantity or variety of food, resulting in weight loss (Or inability to gain weight)
- Patient may report lack of interest in eating
- Avoid food due to sensory characteristics
  - Such as not liking the taste or smell of food
- No body image disturbance (D/d anorexia nervosa)
- All eating disorders are more common in females

CLINICAL QUESTIONS

Q. A 17 year old girl was brought to the psychiatrist by her mother with history that she was repeatedly found vomiting in the bathroom after taking meals, and that her meal size was extremely small. On examination the BMI of patient was 15 kg/m^2 and her knuckles showed callous formation. What is the likely diagnosis?

A. Anorexia nervosa, restrictive pattern
B. Anorexia nervosa, binge-purge pattern
C. Bulimia nervosa
D. Binge eating disorder

Answer: B

Solution

Anorexia nervosa (DSM-IV-TR specifies two subtypes)

- Food Restricting type: during the current episode of anorexia nervosa, the person has not regularly engaged in binge eating or purging behavior (that is, self-induced vomiting, over-exercise, or the misuse of laxatives, diuretics, or enemas).
- Binge-eating type or purging type: during the current episode of anorexia nervosa, the person has regularly engaged in binge-eating or purging behavior (that is, self-induced vomiting, over-exercise, or the misuse of laxatives, diuretics, or enemas).
- Vomiting in can be found in option 2 and 3 but bulimia patients are like bulls. They are not underweight . So, cor answer is 2

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page 513

Q. A 22 year old female was brought by her family members with complaints of low weight. According to mother, patient is extremely picky about what she eats and the amount of food taken is quite low in comparison to others. This has resulted in development of vitamin deficiency. On interview, patient says that she doesn't feel like eating and although she realises that she is losing weight which is not good, but she just cant eat more. No body image disturbances could be elicited. What is the diagnosis?

A. Anorexia nervosa, binge eating type
B. Anorexia nervosa, restrictive type
C. Avoidant-restrictive food intake disorder
D. Bulimia nervosa

Answer: C

Solution

Avoidant restrictive food intake disorder is a new diagnosis that has been included in both ICD-11 and DSM-5. It is characterised by the following-

1. Previously known as feeding disorder of infancy or early childhood.
2. Insufficient intake of quantity or variety of food, that results in weight loss (or inability to gain weight) and nutritional deficiency. The patient may report lack of interest in eating or may avoid food due to sensory characteristics (e.g not liking the smell or taste of food)
3. There are no disturbance of body image (This characteristic helps in differentiating anorexia nervosa, restrictive type from Avoidant -restrictive food intake disorder.

- **HOW TO REMEMBER :**People avoid doing things when they lack interest.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page 1209-1211

Q. A 36-year-old white female presented to the outpatient clinic with depressed mood, lack of interest in fun activities, and poor sleep. She reports discrete periods of time when she eats uncontrollably with a lack of control for the past 6months. She often feels embarrassed and guilty after these episodes. She adds that she is somewhat concerned about her body weight, but her body mass index (BMI) is within normal limits for her height. She likes taking long walks in the evening, but she does not change the intensity of her exercise based on these episodes of excessive eating. What is the most likely disorder?

A. Other specified eating disorder
B. Bulimia nervosa
C. Anorexia nervosa
D. Binge eating disorder

Answer: D

Solution

- **The patient meets the criteria for binge eating disorder: she has recurrent binges characterized by lack of self-control and guilt following these episodes.**
- Her presentation meets the duration requirement of at least 3 months of symptoms.
- Although the patient expresses some concern about her weight, she maintains a normal BMI, ruling out anorexia nervosa.
- Patients with bulimia nervosa have recurrent binges with compensatory behaviors, which are not described in this vignette.
- **HOW TO REMEMBER :**In the movie kungfu panda , the panda says " I eat when I am upset". Binge eaters are the opposite. They are upset after they eat. They feel guilt for lack of self-control over eating.

Reference:

Kaplan and Sadock's synopsis of psychiatry, 11th edition, 2015. page - 519.

LEARNING OBJECTIVES

Sleeping Disorders

- Stages of sleep
  - NREM sleep
  - Four stages of NREM sleep
  - Rem sleep (rapid eye movement sleep)
- Sleep disorder
  - Narcolepsy
  - Klein –Levine syndrome
  - Insomnia
  - Parasomnias
    - → Night terror
    - → Somnambulism
    - → Sleep related enuresis
    - → Bruxism
    - → Nightmare

9 SLEEPING DISORDERS

- Electroencephalogram 00:00:18
  - Measures the electrical activity of the brain
- EEG rhythms:

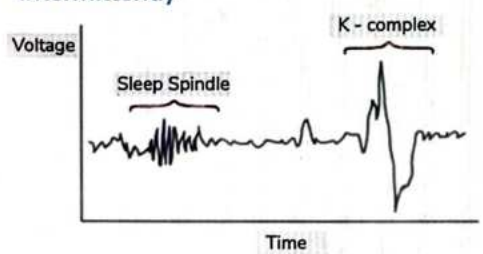
EEG rhythm	Frequency (hz)	Amplitude (Microvolt)	
Alpha (α)	8-12	50- 100	Awake, At rest, eyes closed, Mind wandering
Beta (β)	14-30	5-10	Awake pattern when attention is focused
Theta (θ)	4-7	10	Transition from wakefulness to sleep, early sleep
Delta (δ)	1-4	20-200	Deep sleep

STAGES OF SLEEP 00:02:38

- NREM (Non-Rapid Eye Movement)
- REM (Rapid Eye Movement)

NREM Sleep 00:02:52

- Slow wave sleep
- Further divided into four stages (Stage 1-4)
- There is pulsatile release of gonadotropins and growth hormone
- BP, HR and RR slows down
- Stage – 1 NREM
  - Light sleep (Easy to awake a person)
  - EEG shows, loss of alpha waves
  - Predominance of theta waves
- Stage - 2 NREM
  - Maximum duration
  - Two typical findings
    - → Sleep Spindles (Bursts of regular waves,13-15 hz, 50 micro volt)
    - → K complexes – High voltage spikes, seen intermittently



- Stage–3 NREM
  - Sleep deepens
  - Appearance of delta waves
- Stage–4 NREM
  - Deep Sleep
  - Predominance of delta waves

REM Sleep (Rapid Eye Movement Sleep) 00:05:17

- EEG
  - Beta waves and return of Alpha waves is there
- Rapid eye movements
- Generalized loss of muscle tone
- Increased rate of metabolism in brain
- Increased HR, BP and RR
- Associated with spontaneous penile erection
- Dreams (Can be recalled)
- Paradoxical sleep (Difficult to awake a person)
- Ponto-Geniculo- Occipital spikes
  - Large phasic potentials which start from pons, to LGB to occipital cortex
- Most NREM (Stage-4) in the first one third of sleep.
- Most REM in the last one third of sleep
- REM sleep occurs after every 90-100 min with total of 4-5 REMs per night

Important Information

Out of the 8-hour sleep 6 - 6.5 hours are spent in NREM whereas 1.5 hours are spent in REM and out of NREM max duration is of NREM 2 stage

SLEEP DISORDER 00:09:18

- Can be divided into 2 broad Categories
  - Dyssomnias
    - → Abnormality in duration or quality of sleep
  - Parasomnias

Hypersomnia 00:09:45

- Narcolepsy
  - Reduced latency of REM Sleep
  - Strong desire to fall asleep
  - Hypnagogic and Hypnopompic hallucination
  - Cataplexy
    - → sudden loss of muscle tone except eye muscles

- Sleep attacks seen
  - → Irrestible urge to sleep
- Sleep paralysis
  - → Awake but can't move yourself
  - → Happens because the muscle tone has not yet returned
- Pathology of narcolepsy
  - → It is an immune mediated disorder
  - → Occurs due to deficiency of hypocretin
  - → Hypocretin promote alertness and appetite.
  - → Hypocretin neurons projects from hypothalamus
  - → Strong association with human leucocyte antigen class II (HLA-DR2 and HLA DQB1*0602)
- Treatment
  - → Modafinil (DOC)
  - → Take forced naps.
  - → Advise patient not to do any dangerous activity like driving and swimming as he might sleep in between and can harm himself/herself.

- Klein –Levine syndrome 00:15:34
  - Triad
    - → Hypersomnia
    - → Hyperphagia
    - → Hypersexuality
  - Treatment
    - → Modafinil (DOC)
- Primary Hypersomnia
  - → Present with only hypersomnia
  - → Cause not known

Previous Year's Questions

Q Which of the following is appropriate non pharmacologic. Treatment for someone with narcolepsy?

(JIPMER Dec 2019)

A. Exercise
B. Stimulus avoidance
C. Progressive Relocation
D. Scheduled naps during the day

Insomnia 00:16:10

- Periodic limb movement disorders
  - Sudden contraction of muscle groups (Usually legs) while sleeping
  - Partial or complete awakening during night
  - Bed partner is aware (Patient is usually not)
  - Non restorative sleep
    - → Not feel fresh when you get up in the morning
    - → Day time sleepiness
  - Treatment
    - → Benzodiazepines
- Restless leg syndrome 00:17:57
  - Also called as Ekbom syndrome
  - Uncomfortable sensation in legs (Such as insect crawling)
  - Gets relieved by moving the leg or walking around.
  - Difficulty in initiation of sleep.
  - Treatment
    - → Ropinirole (Dopamine agonist)
- Primary Insomnia
  - Cause not known

Parasomnias 00:18:57

- Characterized by dysfunctional events
- NREM disorder (Usually in NREM 4, NREM 3)
  - Night terror or sleep terror or pavor nocturnus
    - → Child gets up in the night, looks all scared after sometimes goes back to sleep,
    - → Wakes up in the next day and doesn't remember anything about the last night
    - → But in REM sleep patient can remember about the dream
  - Somnambulism 00:21:38
    - → Sleep walking
    - → May even dress, moves around or even drive
    - → Difficult to awake
    - → If person is forcefully woken up, he might appear confused and may attack you.
  - Sleep related enuresis
    - → Usually psychogenic cause (In children 'sibling rivalry')
    - → After the age of 5 years only, diagnosis can be made.
    - → Rule out Organic Causes first (E.g., DM, DI, UTIs, Obstruction)
    - → Day time enuresis favours organic cause more.
    - → Primary Enuresis: Person has never achieved continence
    - → Secondary Enuresis: Person has achieved continence but again becomes incontinent
    - → Treatment
      - Bed alarms (Behavioral therapy) (TOC)
      - Desmopressin (DOC)
      - TCAs (like Imipramine)
  - Bruxism
    - → Teeth grinding
    - → Occurs in NREM 2
    - → Sleep talking (Aka somniloquy)
    - → Treatment: Reassurance to parents
    - → Benzodiazepines (If reassurance doesn't work)

- REM disorder

00:26:42

  - Nightmare
    - → Happens in REM
    - → Child gets up in the night after seeing a scary dream and tells the parent that he saw a scary dream, because it happens in a REM, so he is able to remember it

Previous Year's Questions

Q. Not true about somnambulism among the following is?

(NEET Jan 2019)

A. Sleep Walking
B. Patient consciousness is preserved.
C. Disorder of sleep arousal
D. Low level motor skill/ function is present

CLINICAL QUESTIONS

Q. A 10-year-old experienced sudden awakening, always in the first 3–4 hours of sleep. The prevalent feeling was that of agony and for some time after the event he felt "his heart pounding", shortness of breath, increased pressure in both ears, sweating, and tight muscles in his legs and arms. A few seconds later he had the feeling that something "terrible" had happened. Which of the following area is associated with this phase of sleep cycle?

A. Basal forebrain area
B. Dorsal raphe nucleus
C. Medulla
D. All of the above

Answer: D

Solution

This is a case of night terror seen in NREM of sleep cycle.

NREM sleep generation is associated with 5 anatomical sites: ·

Basal forebrain area
Thalamus
Hypothalamus
Dorsal raphe nucle us
Nucleus tractus solitaries of the medulla

- Preoptic lesions produce hyposomnia, whereas electrical and thermal stimulation of this area produces sleep changes.
- Thalamus (especially reticular formation) plays an active role in production of cortical sleep spindles and delta waves.

HOW TO REMEMBER : NREM now has 3 stages-1,2 and 3+4. Similarly it's associated with front (basal forebrain) , middle(thalamus and hypothalamus) and back of brain (dorsal raphe nucleus and NTS of medulla)

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11thedition,Page No 533
Guyton and Hall Textbook of Medical Physiology, 13th edition, Page No 764-765

Q. A 25-year-old married woman was sent to OPD after experiencing sleepwalking episodes two to three times every night since infancy. The majority of the time, the patient would jump out of bed and cry "Help!" or "I'm going to die!" Occasionally, the patient would tumble off the bed, striking her head or limbs. The patient's husband described these experiences. Which age group is most likely to experience somnambulism?

A. Children
B. Adolescents
C. Adults
D. All age group

Answer: A

Solution

Somnambulism

- Sleep walking, seen in stage 4 and 3 of NREM sleep.
- It is mostly seen in children and is mostly prevalent in ages 4 to 8 years.

HOW TO REMEMBER : Most parasomnias occur in stage 3+4. Most of them occur during 4-8 years of age.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 555

Q. A 32-year-old man comes to physician complaining of excessive sleepiness for the past several months. He reports falling asleep while dealing with customers, had an almost accident when he fell asleep while driving The patient reports that he occasionally hears voices while falling asleep and finds himself "temporarily frozen" and unable to move on awakening.Which of the following is the most appropriate treatment for this patient?

A. Clonazepam
B. Continuous positive airway pressure
C. Melatonin
D. Modafinil

Answer: D

Solution

The above history is suggestive of narcolepsy as patient complains of:

-Excessive daytime sleepiness
-Hypnagogic hallucinations(on falling asleep)
- Hypnopompic hallucinations (on awakening)
-Sleep paralysis

Hypocretin, also known as orexin, is released from the hypothalamus and regulates wakefulness and arousal. · Hypocretin-1 deficiency, measured via cerebrospinal fluid (CSF), is now a part of DSM-5 diagnostic criteria for narcolepsy. · Hypocretin deficiency is considered to be less than 110 pg/ml in CSF.

- Treatment- Modafinil(DOC)
- Advise patient not to do any dangerous activity like driving and swimming as he might sleep in between and can harm him

HOW TO REMEMBER :

1) Modafinil increases neuronal activity selectively in the hypothalamus
2) Ghrelin released by stomach before an expected meal increase orexin increasing wakefulness. SO, we cannot sleep well on an empty stomach.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 547-549

LEARNING OBJECTIVES

Sexual Disorders

- Gender identity disorder (GID)
  - Gender identity disorder of childhood (GID of childhood)
  - Transsexualism
  - Dual role transvestism
- Sexual response cycle
- Disorders of sexual cycle
  - Erectile dysfunction
  - Premature ejaculation
  - Anorgasmia
  - Dyspareunia
  - Vaginismus

10 SEXUAL DISORDER

- Gender
  - It is the sense of being a male or a female.

GENDER IDENTITY DISORDER (GID)

00:01:25

- Usually, anatomical sex organs (Sex) and gender are same
- Mismatch in anatomical sex organs (Sex) and gender is referred as gender identity disorder
- For e.g., a person with male genitalia considers himself to be a female
- In DSM-V, GID has been changed to newer diagnosis "Gender Dysphoria"

Types

- Gender identity disorder of childhood (GID Of Childhood)
  - Seen in preschool years
  - Characterized by preference of playing and dressing in a manner that a person from opposite sex would do.
  - For e.g., Boy prefers playing with dolls over cars and guns or likes wearing frock
  - Express a desire to belong to other gender but rejection of anatomical sense organs is rarely seen.
- Transsexualism
  - Seen in adolescents and adults
  - Sense of discomfort with anatomical sex organs & desires to get rid of them is seen.
  - There is a desire to get sex organs of opposite sex
  - For e.g. A male wants to get rid of his penis or testicles and wants to have a vagina and breast to look and live like a female
  - Phrases like– "I am a male trapped in a female's body" or vice versa are quite characteristic of it
  - Diagnosis
    - → Made by observing for a long period of time to be very certain of diagnosis
  - Treatment
    - → Sex Reassignment Surgery (SRS)
    - → Hormonal treatment to be started before surgery and to be continued for the rest of life
- Dual role Transvestism
  - Episodes of cross dressing are seen to have a sense of belonging to opposite sex
  - They want to experience how it feels to be a female.
  - There is no sexual arousal during the episode.
  - No discomfort with one's sexual organs.

Important Information

- Dual role Transvestism is different from fetishism transvestism as there is no sexual arousal during the episode/ Cross dressing

DISORDERS OF SEXUAL ORIENTATION

00:07:45

- Homosexuality is not considered abnormal
  - Considered as normal variant
- Ego syntonic
  - Person has homosexual orientation, and he is comfortable with it
  - Nothing is done
- Ego dystonic
  - Person has homosexual orientation, and he is not comfortable with it
  - Counseling is done

Sexual Response Cycle

00:09:04

- There are 4 stages seen in this cycle
- Desire
  - Characterized by a desire to have a sexual act.
- Excitement (Arousal)
  - Physiological changes are seen in the body.
  - Changes In males
    - → Erection of pennis
    - → Enlargement, and elevation of testis in seen.
  - Changes in females
    - → Vaginal lubrication
    - → Erection of nipples
    - → Thickening of labia minora and clitoris
    - → Increase in HR, RR & BP can be seen
  - Plateau phase
    - → This stage can last for several minutes to several hours and peaks at the end which is called as plateau phase.
    - → Intensification of the excitement phase
- Orgasm
  - It is the smallest phase
  - Continues for 3-15 seconds
  - In males, peaking of pleasure along with ejaculation
  - In females, there is involuntarily contraction of vagina

along with contraction of uretic fundus going towards the cervix.

- Resolution
  - Body goes back to its normal state
  - Lasts for 10-15 minutes or may continue for half a day in the absence of orgasm

Disorders of sexual cycle 00:11:07

- Sexual desire disorder
  - Hypoactive sexual desire disorder
  - Lack of desire to indulge in sexual activity
  - Mostly seen in females
  - Treatment
    - → Flibanserin (DA- significant hypotension).
    - → Bremelanotide

In DSM-IV, Sexual Aversion Disorder is described as active avoidance of sex. In DSM-V, this order has been removed and clubbed along with hypoactive sexual disorder.

- Disorders of excitement phase
  - Erectile dysfunction
  - Female sexual arousal disorder
    - → Characterized by poor lubrication during the act of sexual intercourse.
    - → Treatment: Vaginal lubricants

Erectile dysfunction 00:12:00

- Seen in males.
- There is persistent inability to either achieve or maintain the erection required for sexual intercourse.
- Most common cause: Psychogenic causes like performance anxiety
- Two types of Erectile dysfunction
  - Organic erectile dysfunction
    - → Due to abnormality in either vascular or nerve apparatus.
  - Psychogenic erectile dysfunction
    - → Due to psychological causes.
    - → In psychogenic ED, nocturnal and early morning erections are seen as there is no stressful condition but these erections can't be seen in organic causes

	Psychogenic ED	Organic ED
History of early morning erections and nocturnal erections	Present	Absent
Penile plethysmography	Present	Absent
Nocturnal penile intumescence	Present	Absent

- Diagnosis
  - Plethysmography
  - Nocturnal Penile Intumescence
- Treatment
  - Pharmacotherapy
    - → PDE-5 Inhibitors (DOC): Sildenafil, Tadalafil, Avanafil, vardenafil
    - → Oral Phentolamine
    - → Alprostadil: Can be used as intraurethral or as injectable
  - Psychotherapy: Dual Sex therapy
    - → Master's & Johnsons technique
    - → Couple is treated in it as a unit
    - → As per this therapy, sensory awareness between the couple needs to be improved to treat this as well as many other sexual disorders
    - → Communication also needs to be improved between the couple Technique named as Sensate Focus was given for sensory awareness
    - → First step: Non genital sensate focus followed by Genital sensate focus
- Disorders of orgasm 00:18:49
  - Premature ejaculation
  - Anorgasmia

Premature ejaculation

- Seen in males
- There is a pattern of persistent ejaculation by minimum sexual stimulation or immediately after vaginal penetration.
- As per DSM-V, repeated ejaculation in less than one minute is the criteria for premature ejaculation.
- Etiology
  - Mostly psychogenic
- Treatment

A. Pharmacotherapy
  - Given S.O.S before the intercourse.
  - SSRI
  - Clomipramine
  - Tramadol use suggested by some studies

B. Behavioral techniques
  - Squeeze technique
    - → When the male feels that he is about to ejaculate, his penis squeezed slightly at corona of the penis to cause mild pain and to delay ejaculation.
  - Stop & start technique
    - → Semen's technique
    - → A gap of 20-30 seconds is taken between the

intercourse whenever he likes he is about to ejaculate and then starts again after the gap
- Master's and Johnsons technique can also be used

Previous Year's Questions

Q. Seman's squeeze technique is used in treatment of?

(NEET Jan 2018)

A. Erectile Dysfunction
B. Premature Ejaculation
C. Retrograde Ejaculation
D. Antegrade Ejaculation

00:21:29

Anorgasmia
- Common in female
- Inability to achieve orgasm
- Treatment
  - Psychotherapy

Other sexual disorders
- Dyspareunia
  - Pain before/during/after sex can be seen in both the sexes
  - Treatment
    - → For organic causes of dyspareunia, medical treatment is done
    - → For other causes, psychotherapeutic treatment is done
- Vaginismus
  - Involuntary contraction of lower one-third of vagina when sexual intercourse is attempted
  - Because of it, penial penetration becomes impossible.

Important Information

- In DSM-V, both dyspareunia and vaginismus are clubbed together as Genito pelvic pain/penetration disorders.

- Nymphomania
  - Excessive sexual desire in females
- Satyriasis
  - Excessive sexual desire in males

Previous Year's Questions

Q. Which of the following is not a paraphilia?

(PGI MAY 2018)

A. Adultery
B. Masochism
C. Exhibitionism
D. Frotteurism
E. Lesbianism

CLINICAL QUESTIONS

Q. A mother of a teenager claims that school workers told her that her kid seemed alienated from the other students and anxious to fit in. They didn't understand, and to be honest, neither did the mother at the time. She later learned that he told a couple of her closest friends that she wanted to be a girl, which they thought was strange and called her names. Her mother urged her to accept that she was a guy while also expressing that she was comfortable with liking girly things. He did, however, express his displeasure with God for giving her guy parts when she was indeed a girl. The following is the most likely diagnosis:

A. Trans – sexualism
B. Transvestism
C. Voyeurism
D. Paraphilias

Answer: A

Solution

As mentioned in the question, the person is uncomfortable with his sex and feels that he is imposed by a female body (i.e., he is of another sex). Both are characteristics of gender identity disorder.

TRANSEXUALISM:

- It is the severest form of gender identity disorders
- There is a sense of discomfort with anatomical sex organs & desires to get rid of them i.e., dissatisfaction with allotted sex.
- Phrases like - **I am a male in female body** or vice versa are quite characteristic of it.
- Observation for a long period of time is needed to be very certain of diagnosis
- Treatment: Sex Reassignment Surgery (SRS) with hormonal treatment

TRANSVESTISM:

- episodic cross dressing to have a sense of belonging to opposite sex-Dual role Transvestism
- Cross dressing to attain sexual excitement-Fetishistic Transvestism (occurs exclusively in heterosexual males)

VOYEURISM:

- Also known as scopophilia.
- This is a persistent or recurrent tendency of watching others in the act of sex or undressing
- This is often followed by masturbation to achieve orgasm
- Almost always seen in males
- Watching pornography is not included here.

PARAPHILIAS:

- These are disorders of sexual preference in which sexual arousal occurs persistently and significantly in response to objects which are not a part of normal sexual arousal.

HOW TO REMEMBER:

Trans-VESTism = wishes to wear VEST (cross-dressing).

Trans-SEXualism = wishes to be opposite sex(gender)

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page 593, 597, 600-607

Niraj Ahuja's A Short Textbook of Psychiatry, 7th edition, Page121, 122, 124, 125

Q. A 37 year old male patient claims that after 10 years of his marriage and satisfactory sex life, he cannot get an erection with his wife since the last 6 months. He doesn't have any extramarital affairs . He doesn't have any chronic medical illness like HTN/DM/Thyroid diseases. The consultant doctor checks which one of the following and says it's a psychological problem that he has ?

A. Nocturnal penile tumescence

B. PIPE test

C. Sildenafil-induced erection

D. Squeeze technique

Answer: A

Solution

- Presence of early morning erections and erection during REM sleep (nocturnal erection) are suggestive of psychogenic erectile dysfunction as there is no anxiety.
- Whereas, a patient with organic erectile dysfunction (due to vascular or neurological causes) would not have erections even during sleep.
- Investigations, such as penile plethysmography and nocturnal penile intumescence (NPT) can be used to record nocturnal erections.

HOW TO REMEMBER: imagine a romantic night with full moon . Moon shines bright in night when there are no clouds. Penis rises(erects) at night when there is no organic cause.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page 576-577

Niraj Ahuja's A Short Textbook of Psychiatry, 7th edition, Page 128

LEARNING OBJECTIVES

Child Psychiatry

- Attention deficit hyperactivity disorder (ADHD)
  - Symptoms
  - Types
  - Pharmacotherapy
- Pervasive developmental disorders
  - Autism
  - Rett's disorder (Rett's syndrome)
  - Asperger's syndrome:
  - Heller's syndrome
- Mental retardation (intellectual disability)
- Learning disorders
- Disruptive behavioural disorders:
  - Conduct disorder
  - Oppositional defiant disorder
- Tic disorders
- Tourette's syndrome

11 CHILD PSYCHIATRY

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

00:00:20

- Most common neuropsychiatric disorder of childhood
- Previously it is called as Minimal brain dysfunction
- According to ICD 10, it is called as Hyperkinetic disorder.
- But according to DSM & ICD 11, it is known as ADHD.
- ADHD is more common in Boys

Symptoms

- Inattention
  - Not able to give attention to close details
  - Make frequent mistakes
  - Distractible
  - Shifts activities and unable to finish any tasks
- Hyperactivity
  - Keeps on roaming in class
  - disturbs other students
- Impulsivity
  - Unable to wait for his turn
  - Answers before question is complete
  - Interfere in others talks
- Other symptoms include
  - Destructive behavior
  - Irritability
  - Aggression.
- Soft neurological signs
  - These are fine abnormalities found out after detailed examination
  - Examples
    - → Difficulty in copying age-appropriate figures,
    - → Difficulty in rapidly alternating movements
    - → Difficulty in right left discrimination
  - These are also found in schizophrenia

Important Information

- According to latest DSM 5 changes, symptoms should start before 12 years of age but previously it was 7 years of age

Types

- According to DSM-5
  - Predominantly hyperactive/impulsive
  - Predominantly inattentive
  - Combined

- When these ADHD children reach puberty / adolescence lot of symptoms get better especially Hyperactivity and impulsivity.
- Around 50% achieve remission by puberty, rest are vulnerable to,
  - Substance use disorders (Alcoholism)
  - Antisocial Personality disorder
  - Mood disorders like depression
- Hence, a serious illness needs Pharmacotherapy

Pharmacotherapy

Stimulants	Non stimulants
• Methylphenidate, dexmethylphenidate	• Atomoxetine
• Amphetamines	• Bupropion
• Modafinil	• Clonidine, Guanfacine
	• Venlafaxine

- Stimulants are the preferred group of drugs in children with ADHD
- Methylphenidate is the drug of choice for ADHD children
- Stimulants help in treating the under stimulation of brain in ADHD (In ADHD there is compensatory hyperactivity)
- Stimulants should be avoided in patients with ADHD with seizure disorder because it stimulates the condition.
- Apart from pharmacotherapy, Psychotherapy treatments like Behavioral therapy (BT) and Cognitive Behavioral therapy (CBT) are used.
- Social skills training should be given
- Psychoeducation of the parents i.e., Parents should be informed with the illness and treatment of the patient

Previous Year's Questions

Q. The preferred drug Rote treating attention deficit hyperactivity disorder in a 6-year-old boy, whose father has a history of substance abuse?

(JIPMER - May - 2018)

A. Methylphenidate
B. Atomoxetine
C. Clonidine
D. Dexamphetamine

PERVASIVE DEVELOPMENTAL DISORDERS

00:10:24

- Group of Neurodevelopmental (Neuropsychiatric) disorder

A. Autism

- Impairment in social interaction (Reciprocal social skills poor)
  - Poor eye contact, lack of social smile and anticipatory posture absent.
  - Poor attachment to parents and others
  - If routines are disturbed, may have an excessive reaction
  - Difficulty in making friends
- Restricted, repeated & stereotype behaviors
  - Repetitive plays
  - Stereotyped movements like hand wringing, spinning and head banging
  - Lack of imagination
- Impairment of communication and language
  - Delayed language milestones, motor milestones normal
  - Abnormal sentences, pronoun reversal
- Abnormal responses to stimuli
  - Higher threshold for pain and less/no sensations for spinning movements.
  - Extreme interest in certain sounds, like ticking of clocks
- Self-destructive behaviors
  - Biting
  - Scratching
  - Head banging
- Abnormal dermatoglyphics (Fingerprints)
- Late development of handedness and lateralization
- Associated physical abnormalities like ear malformation and abnormal dermatoglyphics
- Precocious skills or islets of Precocity e.g., Hyperlexia, calculating ability or rote Memory etc.
- Strong genetic basis
- Onset is before 3 years
- More common in boys
- Conditions associated with Autism
  - Fragile X syndrome
  - Tuberous sclerosis
  - Congenital Rubella
  - Phenylketonuria
  - Mental retardation (30% Autism Children)
  - More prevalence of perinatal insults like birth asphyxia.
- Treatment
  - Structured classroom teaching
  - Behavioral therapy
  - Low dose Antipsychotics like Risperidone and Aripiprazole are specifically used to reduce Aggression and Deliberate Self harm.

Important Information

- **No correlation between MMR vaccine and Autism**

Previous Year's Questions

Q. A 6-year-old child who doesn't interact with other children of his age group and prefers playing alone in the same manner, is likely suffering from?

(FMGE Nov 2017)

A. Autism
B. ADHD
C. Depression
D. Bipolar disorder

B. Rett's disorder (Rett's syndrome)

00:21:53

- Almost exclusively seen in Females
- Normal development till 5 months, between 5 to 48 months
  - Deceleration of head circumference (Microcephaly)
  - Loss of acquired hand skills and speech (Pincer grasp may be absent)
  - Poor gait, ataxia
  - Three symptoms of Autism (Restricted repeated patterns of behavior, Disturbances of social interaction, Impairment of communication) are seen.
  - 75% have seizures
  - Cause of death is generally cardiac arrythmias.

C. Asperger's syndrome

00:24:22

- Asperger's syndrome is similar to autism except language dysfunction,
- Both impaired social interaction and restrictive social interaction are seen.

D. Heller's syndrome

00:24:52

- Childhood Disintegrative Disorder
- Normal development till 2 years
- Between 2 to 10 years, Three core symptoms of autism will develop
  - Loss of acquired motor skills,
  - Loss of social skills,
  - Loss of bowel & bladder control.

- According to ICD – 11 & DSM – 5 updates,
  - These disorders are collectively called as autism spectrum disorder.
  - Language dysfunction has been removed as a criterion

MENTAL RETARDATION (INTELLECTUAL DISABILITY)

00:26:56

- Incomplete development of intellectual functions and adaptive skills
- IQ (Intelligence quotient) = Mental age / Chronological age X 10

Normal	90-109
Mild MR	50-69
Moderate MR	35-49
Severe MR	20-34
Profound MR	< 20

- Chronological age of the patient cannot be more than 15 even though it is more than 15, i.e. if the patient of 18 years old with the 7.5 years of mental age, while calculating IQ, the chronological age should be written as 15 even though it is 18
- IQ less than 70 is considered as mental retardation

Category	Class	Mental age as adults	Education	Life	Work
Mild MR	Educable	9– 12 years	Upto 6th class	Independent living	Unskilled or semiskilled
Mod MR	Trainable	6– 8 years	Upto 2nd class	Needs support	Unskilled or semiskilled
Severe MR	Dependent	3-6 years	No formal education	Needs attention	Simple task under supervision
Profound MR	Needs life support	< 3 years	No formal education	Needs continuous supervision	None

Term	IQ range
Moron	51- 70
Imbecile	26–50
Idiot	0–25

- Most common chromosomal cause of Mental Retardation is Down's syndrome
- 2nd most common chromosomal cause of Mental Retardation is Fragile X syndrome.
- For Behavioral problems: Contingency management: Rewarding desirable behavior
- Antipsychotics can also be used in some cases.

Previous Year's Questions

Q. A student was referred for evaluation as he was having difficulty in studies - On IQ testing, his IQ level was found to be 55. What is the diagnosis?

(FMGE Dec 2020)

A. Mild MR
B. Moderate MR
C. Borderline intelligence
D. Severe MR

Previous Year's Questions

Q. New name of mental retardation according to American Association of Mental Retardation?

(NEET - Jan - 2018)

A. Feeble mindedness
B. Madness
C. Intellectual Disability
D. Mentally unstable

00:33:57

LEARNING DISORDERS

- Significant impairment in one or more scholastic skills,
- Out of proportion to intellectual functioning
- Usually IQ is normal, only in a particular domain patient face problems.
  - Specific reading disorder (Dyslexia)
  - Disorders of written expression
  - Specific spelling disorder
  - Makes frequent spelling mistakes.
  - Specific disorders of arithmetic skills
  - Mixed disorders of scholastic skills.

Previous Year's Questions

Q. A child is referred by the school as he faces difficulty in making proper sentences. Otherwise his intelligence levels appear normal, he is good in mathematics and his social behavior is appropriate too. What is the likely diagnosis?

A. Specific learning disability
B. Mental Retardation
C. Depression
D. Exam phobia

DISRUPTIVE BEHAVIORAL DISORDERS

00:35:50

A. Conduct disorder

- Pattern of 'disregard for rights of others' and aggressive and dissocial behavior
- Stealing, repeated lying, aggression, bullying, cruelty towards animals, disobedience, or defiance of authorities, running away from school.
- Boys
  - More physical and relational aggression
- Girls
  - More relational aggression
- Later development of antisocial personality disorder and substance abuse.
- Low resting heart rate
  - Predictor of chronic aggression and conduct disorder

B. Oppositional defiant disorder

- Negativistic and defiant behavior towards adults and authority figures.
- Deliberately annoys parents and teachers.
- Gross violation of social norms is not seen.
- Management
  - Behavioral therapy, Family therapy
  - Low dose antipsychotics

TIC DISORDERS

00:39:07

- Tics are brief, rapid, recurrent motor movements (Motor tics) or vocalizations (vocal tics)
- Performed in response to internal urges
- Simple
  - Blinking
  - Shoulder shrugging
- Complex types
  - Jumping
- Echolalia
  - Repeating of others speech
- Echopraxia
  - Mimicking others behavior
- Coprolalia
  - Use of obscene words
- Copropraxia
  - Making obscene gestures

TOURETTE'S SYNDROME

00:41:53

- Multiple motor tics and one or more vocal tics
- Most common comorbidity is ADHD
- Others OCD, depression
- Course
  - Onset: 4 to 6 years
  - Peak at 10 to 12 years
  - Remission by adolescence or young adulthood (In half to two third)
- Males > Females
- Treatment
  - Combination of Behavioral therapy and pharmacotherapy
  - In behavioral therapy we do Habit reversal therapy
    - → T/T of choice
    - → Focus and identify the urge and do some alternating acceptable behavior
  - Pharmacotherapy
    - → Clonidine and Guanfacine (First line)
    - → Risperidone
    - → Haloperidol, Pimozide (FDA approved)

Previous Year's Questions

Q. A 7-year-old child presented with history of bed wetting for last 1 year, with the frequency being twice a week. With through investigations, organic causes were ruled out. What should be initial treatment plan? (INICET-2020)

A. Pharmacotherapy with imipramine
B. Psychodynamic psychotherapy
C. Bladder training with reward for delaying micturition during daytime
D. Bell and pad based classical conditioning

Previous Year's Questions

Q. A 10-year-old child presented with selective mutism. He is most probable suffering from? (INICET 2020)

A. Childhood depression
B. Hyperkinetic disorder
C. Childhood psychosis
D. Childhood anxiety disorder

CLINICAL QUESTIONS

Q. A mother brought her 5 year old male child with complaints of poor motor development and minimal speech development. Her antenatal and postnatal period was uneventful and child was always healthy according to her except for the present complaints. The child was assessed for his intelligence which revealed an IQ 30 . His IQ falls under :

A. Mild mental retardation
B. Moderate mental retardation
C. Severe mental retardation
D. Profound mental retardation

Answer: C
Solution

Average	90-109
Dull normal	80-89
Borderline	70-79
Mild MR	50-69
Moderate MR	35-49
Severe MR	20-34
Profound MR	<20

HOW TO REMEMBER: remember Border and line both mean two individual lines that can be imagined to join and form 7. So, borderline IQ is in 70s (70-79). Use this partition to remember those above and below it.

Reference:

A Short Textbook of Psychiatry by Niraj Ahuja, 7th edition, Page No 156

Q. Child Tej's parents first noticed his hyperactivity, impulsivity, and difficulty to follow orders when he was three years old. His parents attempted everything they could to keep his conduct under control, including confining him in his crib, verbally punishing him, and spanking him on occasion. He was regularly suspended from school and forced to relocate from one school to the next during his pre-school years because he couldn't sit still, couldn't wait for his turn, and was continually disrupting other pupils in the class. He is now six years old and remains the same. What treatment options are available for Tej?

A. Amphetamine
B. Modafinil
C. Methylphenidate
D. All of the above

Answer: D

Solution

Pharmacotherapy:

Stimulants	Non stimulants
Methylphenidate, dexmethylphenidate	Atomoxetine
Amphetamines	Bupropion
Modafinil	Clonidine, Guanfacine
	Venlafaxine

- In children with ADHD, stimulants are the favoured class of medicines.For youngsters with ADHD, the medicine of choice is methylphenidate. Atomoxetine is an ADHD medication that also has some antidepressant properties.Similarly, several studies have demonstrated that bupropion is effective in treating depressed and ADHD symptoms.However, because it is known to lower the seizure threshold, it would not be a good choice for a patient with a history of seizures.

  NOTE: Enhancement of dopamine and norepinephrine actions in certain brain regions may improve attention, concentration, executive function, and wakefulness (e.g., dorsolateral prefrontal cortex)Enhancement of dopamine actions in other brain regions (e.g., basal ganglia) may improve hyperactivity

Reference: Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 1175

Q. A mother brought her 7 year old male child with complaints of low academic performance and slow speech development. Her antenatal and postnatal period was uneventful and child was always healthy according to her except for the present complaints. However, she gave history of slow development of motor milestones in the child. The child was assessed for his intelligence which revealed an IQ 60 . Best therapy suited to teach daily life skill to this child :

A. CBT (Cognitive behavior therapy)
B. Contingency management
C. Cognitive reconstruction
D. Self instruction

Answer: B

Solution

- Patients with mental retardation may exhibit maladaptive behaviours such as hostility, self-injurious behaviour, hyperactivity, and so on. These behaviors can usually be modified using behavioral therapy techniques like contingency management, in which the desired behaviors are rewarded and undesired behaviors are punished.

- **HOW TO REMEMBER:** Contingency management to Contain Child (say by giving Chocolates)

Reference:

Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 10th edition, Page No 2873

LEARNING OBJECTIVES

Psychoanalysis

- Dreams
  - Interpretation of dreams
  - Mechanism involved in dream work
- Techniques to access unconscious mind
- Structural theories of mind
  - Id
  - Ego
  - Superego
- Defense mechanisms
  - Narcissistic defenses
  - Immature defenses
  - Neurotic defenses
  - Mature defenses
  - Defense mechanism involved in various psychiatric disorders
- Psychosexual stages of development
- POSCO Act 2012

12 PSYCHOANALYSIS

- Sigmund Freud is the Father of Psychoanalysis.
- Theory of psychoanalysis
  - Childhood experiences and memories & unconscious internal conflicts are responsible for psychiatric disorder in children

> **Important Information**
>
> - **Term Psychoanalysis is used for both theory as well as the treatment method**

- In 1900, 'Interpretation of dreams' was published

Topographical theory of mind 00:02:46

- Given by Sigmund Freud
- There are three parts of mind
  - Conscious mind
  - Preconscious mind
    - → Contains things that need effort to recall
    - → Prevents content of unconscious mind going to the conscious mind (Repression)
  - Unconscious mind
    - → Has content which the person is not able to recall.
    - → Distressing memories and instinctual drives (Drives and desires one is born with)
    - → Works on Primary process thinking
    - → Immediate 'Wish fulfilment' and instinctual discharge
    - → Illogical and contradictory

DREAMS 00:07:12

Interpretation of dreams

- Dreams allow unconscious unacceptable impulses and desires to reach conscious mind
- Needs transformation "Dream work"
- Latent content
  - Original content
- Manifest content
  - Dream content
- Latent content is transformed into Manifest content
- Involves attachment with images from current experience

Mechanism involved in dream work

- Displacement
  - Example: Drive to hit father displaced on to the dog in the dream
- Condensation
  - Converse irradiation
  - Multiple drives and images condensed together in a single dream
- Symbolic representation
  - Symbols seen in place of distressing content

Techniques to access unconscious mind 00:13:20

- Interpretation of dreams
- Free association
  - Patient is made to lie on a couch, and the doctor stands behind the patient
  - Patient is allowed to speak whatever comes in his or her mind
  - There should not be any kind of censorship while speaking
  - Unguided communication
  - Parapraxis
    - → Slips of tongue
- Transference
  - Feeling that patient develops for doctor.
  - Combination of feeling that patient had for figures from past, plus real feeling for the doctor.
  - For e.g.: if the patient gets reminded of father who abused her in childhood by seeing the doctor, the patient may dislike the doctor.
- Counter transference
  - Feeling that doctor develops for patient.
  - For e.g.: if the patient reminds the doctor of a patient who didn't give fees yesterday, the doctor may dislike the patient
- Abreaction
  - Recall of memory with release of emotions

> **Previous Year's Questions**
>
> **Q. Freud's theory of dream work, includes all except?**
>
> (NEET Jan 2018)
>
> A. Displacement
> B. Condensation
> C. Symbolization
> D. Confabulation

STRUCTURAL THEORIES OF MIND 00:18:52

- Given by Sigmund Freud
- There are three components of mind
  - Id
  - Ego
  - Superego

Id

- Most primitive part
- Instincts
- Pleasure principle
- Completely in unconscious domain and used primary process thinking

Ego

- Reality principle
- Part that deals with the external world
- Maintains a balance
- Executive organ of mind
- Both unconscious and conscious components.

Superego

- Moral principle
- Mostly unconscious, but has conscious component too

Important Information

- **Id: Pleasure principle**
- **Ego: Reality principle**
- **Superego: Moral principle**

DEFENSE MECHANISMS 00:22:24

- These are mechanisms used by ego to prevent buildup of excessive anxiety
- They are unconscious

Narcissistic defenses

- Denial
  - Refusal to accept the reality
  - For e.g.: mother not accepting the news of death of her son
- Projection
  - Transfer of feelings about a person, on to, that person.
  - For e.g.: Husband wants to cheat on his wife, so he projects on his wife that she is cheating on me and then cheats with his wife
  - Involved in development of hallucinations and delusions

Immature defenses 00:25:33

- Acting out
  - Acting on an unconscious desire without becoming aware of it.
  - Involved in impulse control disorder
- Passive aggressive
  - Expression of feelings in an indirect way
- Regression
  - Return to an earlier stage of development
  - Involved in neurosis
  - For e.g.: A PG aspirant playing cricket in street with children.
- Projective identification
  - Intolerable aspects of self are projected on to another person, that person is induced to play the projected part and the two persons act in unison.
  - Seen in borderline personality disorder

Neurotic defenses 00:28:58

- Displacement
  - Transfer of emotions from one individual to another.
  - Involved in phobias
- Repression
  - Loss of memory and loss of access to it.
- Rationalization
  - Giving a logical reason for an unacceptable behavior.
  - Involved in substance use disorder.
  - For e.g., an alcoholic giving reason of pain in his life as a reason for drinking.
- Reaction formation
  - Transforming an impulse into its exact opposite behavior.
  - For e.g., you want to go on a date on valentine's day, but no girl is ready to go with you. So, you join a group that prevents celebration of valentine's day saying it is against Indian culture
- Intellectualization
  - Excessive use of intellect to avoid the painful emotions
- Isolation of affect
  - Removing the feelings associated with a stressful live event
  - For e.g., a female describing her family that she is diagnosed with breast cancer without any emotions.
- Undoing
  - An act is done to nullify the previous act.
  - Seen in OCD
- Aim inhibition
  - An aim is limited, and partial fulfilment of desires is accepted

Important Information

- All these neurotic defenses can be seen in normal persons also only when they are extensively used they are considered abnormal

00:33:18

Mature defenses

- S - Sublimation
  - Transformation of a socially unacceptable impulse into socially acceptable behavior
  - For e.g., person who loves blood and flesh may become surgeon or orthopaedician in future
- A - Anticipation
  - Preparing in advance for an unpleasant situation
- H - Humor
  - Use of comedy to deal with unpleasant situation
- A - Altruism
  - Use of social cause to deal with own emotion
- S - Suppression
  - Loss of a memory which can be easily brought back.
  - Only conscious defense mechanism.

How to remember

- SAHAS

Defense Mechanism involved in various psychiatric disorders

- OCD
  - D - Displacement
    - → Transfer of emotions from one individual to another
    - → Also Used in Phobia
  - U - Undoing
    - → An act to nullify the previous act
  - R - Reaction formation
    - → Transforming an impulse into its exact behavior
  - I - Inhibition (Aim inhibition)
    - → Accepting partial fulfilment of desires
  - I - Isolation of effect
    - → Removing feelings associated with a stressful event

How to remember

- OCD-DURII

- Phobia
  - Displacement and inhibition
- Neurosis
  - Regression

Previous Year's Questions

Q. Defense mechanism in "OCD" are all accept?

(PGI May 2018)

A. Undoing
B. Projection
C. Displacement
D. Reaction formation

PSYCHOSEXUAL STAGES OF DEVELOPMENT

00:36:58

- Given by Sigmund Freud
- States that human sexuality develop in multiple stages
- By sexuality he meant how human derive pleasure
- Oral stage
  - 0 – 1.5 years
- Anal stage
  - 1.5 – 3 years
  - Fixation in this stage leads to OCD
- Phallic stage
  - Phallus means pennis
  - 3 – 5 years
  - Fixation in this stage leads to Neurosis
  - Oedipus complex
    - → Male child develop sexual feeling towards mother
  - Castration anxiety
    - → Male child believes that his father will take revenge by castrating him
  - Electra complex
    - → Female child develop sexual feeling towards father
- Latent stage
  - 5 – 12 years
- Genital stage
  - 12 years till young adulthood

Previous Year's Questions

Q. Oedipus Complex is seen in?

(JIPMER NOV 2017)

A. Girl 1 to 3 years.
B. Girl 3 to 5 years.
C. Boys 1 to 3 years.
D. Boys 3 to 5 years

POSCO ACT 2012

00:41:09

- Protection of children from sexual offences act
- Gender neutral
  - For both victim and accused
- Reporting is mandatory
- Various offences for which its applicable
  - Child pornography
  - Sexual harassment (use of sexually coloured language, sexual gestures etc.
  - Sexual assault (involves inappropriate touch)
  - Penetrative sexual assault (vaginal/anal/oral/urethral penetration)
  - Aggravated penetrative sexual assault/aggravated sexual assault

Aggravated penetrative sexual assault/aggravated sexual assault

- The term aggravated is added to sexual assault when assault done by
  - Person in position of authority (police officer, staff of jail/remand home/hospital)
  - A gang is involved
  - Use of deadly weapons
  - Causing grievous hurt
  - Attempt to murder
  - Makes the female child pregnant
  - Done repeatedly
  - Child below 12
  - In course of communal or sectarian violence

Previous Year's Questions

Q. Under the POCSO act, all of the following are aggravated penetrative' sexual offences except

(AIIMS 2018)

A. Gang rape
B. Offence by police officer
C. Communal and sectarian violence
D. By threat

CLINICAL QUESTIONS

Q. A young male patient has visited a Clinical Psychologist for his anger issues. The Psychologist suggested counting to ten when angry before taking action and says that there is science behind it that postponing paying attention to a "conscious impulse" or "conflict" is a mature defense mechanism known as:

A. Sublimation
B. Suppression
C. Humor
D. Anticipation

Answer: B

Solution

Suppression is the act of postponing or delaying action on a conscious urge (a conscious wish) and its accompanying emotions.It's the sole self-aware protection mechanism.

Other well-developed defensive mechanisms include:

Sublimation is the process of transforming a socially unacceptable impulse into a socially acceptable action.
Anticipation is the act of planning ahead of time for an unfavourable scenario.
Humor is the use of comedy to deal with a difficult circumstance.
Altruism is the utilisation of a societal purpose to deal with one's own feelings.

HOW TO REMEMBER: s-up-pression, where up denotes conscious and down denotes subconscious.

Reference:
Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 162

Q. Psychoanalysis uses techniques such as free association, analysis of dreams, and transference to uncover "unconscious" urges, and thereby to reduce the need for neurotic defenses. Which of the following is not a neurotic defense mechanism?

A. Isolation
B. Regression
C. Reaction formation
D. Undoing

Answer: B

Solution

Regression is an immature defense mechanism. Rest all are neurotic defense mechanism.

Eg of neurotic defense mechanism -

- Displacement
- Repression
- Rationalization
- Reaction formation
- Intellectualization
- Isolation of affect
- Undoing
- Aim inhibition

HOW TO REMEMBER : regression and aggression are immature mechanisms.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 161-162

Q. Mr. Damodhar had a history of consuming alcohol for 15 years and for past two years consuming alcohol in dependence pattern. He consumed all varieties of alcohol about 360ml/day. The last drink was a week ago with 360ml of whiskey. When questioned of his habit he blames the family environment as a cause of his alcoholism. This is phenomenon of:

A. Projection
B. Denial
C. Rationalization
D. Sublimation

Answer: C

Solution

- Rationalization is the process of providing rational justifications for one's own bad behaviour. An alcoholic, for example, blamed his excessive drinking on his familial milieu. It's a frequent protective strategy in those with substance abuse problems.

Reference:

Kaplan and sadocks synopsis of psychiatry edition 11 page 162

LEARNING OBJECTIVES

Miscellaneous

- Electroconvulsive therapy
  - Direct ECT
  - Indirect ECT
  - Mechanism of action
  - Indications
  - Side effects
- Cognitive developmental stages
  - Sensorimotor stage
  - Stage of preoperational thought
  - Stage of concrete operations
  - Stage of formal operations
- Learning theory
  - Classical conditioning (Pavlov's experiment)
  - Operant conditioning
- Psychotherapy
  - Behavioural therapy
  - Cognitive therapy
- Cognitive distortions
- Psychosocial treatment of substance use disorders
- Neuropsychological tests
  - Intelligence testing
  - Personality assessment

13 MISCELLANEOUS

ELECTROCONVULSIVE THERAPY 00:00:22

- Electricity used to induce seizures

Direct ECT

- Anesthetic Agents & muscle relaxants are not used.
- Patient experiences generalized epilepsy
- High incidence of fractures or teeth dislocations

Indirect ECT

- Also called as Modified ECT
- Anesthetic Agents & muscle relaxants are used
- "Methohexital" is the anesthetic agent of choice

Electrode placement

- B/L ECT
  - Bi-frontotemporal electrode placement or bifrontal electrode placement
- U/L ECT
  - To further ↓ the s/e
  - Right U/L ECT
  - Dose response relationship is seen

Mechanism of Action

- Exact mechanism not known
- Change in neurotransmitters
- Increases BDNF (Brain derived neurotrophic factor)
- Neurogenesis in areas of brain like hippocampus

Indications 00:05:30

- Depression
  - With suicide risk
  - With stupor
  - Psychotic depression
  - Intolerance to drugs
- Catatonic schizophrenia
  - Not effective in chronic schizophrenia patients
- Mania
- Others
  - Intractable seizures
  - NMS
  - Delirium
  - Parkinson's d/s

Side effects

- Memory disturbances
  - Retrograde amnesia > anterograde amnesia
- Headache, muscle aches, fractures, tooth dislocations, rarely delirium
- Prolonged seizures: For more than 180 seconds

Important Information

- No absolute contraindication to ICT
- In past raised ICT was the only absolute C/I (Like brain tumor etc.)

COGNITIVE DEVELOPMENTAL STAGES 00:10:30

- Development of thinking process as the child grows
- It develops in 4 stages.
- Given by Jean Piaget

Sensorimotor Stage

- From Birth to 2 years
- Learns through sensory observations
- Gradually starts controlling motor functions
- Initially no objects permanence
  - Here & now thinking
  - Out of sight, out of mind thinking
- In the end of this stage, object permanence develops

Important Information

- Symbolization: Around 18 months infants develops mental symbols and use word for objects.

Stage of preoperational thought

- From 2 to 7 years
- Extensive use of symbol and language
- Intuitive thought
  - Lack of reasoning and logic
- Egocentric
  - Only Concerned about needs of self
  - Can't consider from others perspective

Stage of concrete operations

- From 7 to 11 years
- Operational thought
  - Children start seeing others perspective too

- Concrete thinking
  - Literal thinking (Does not have deep thinking)
- Logical Thinking starts to develop
  - Able to understand rules and regulations
- Attainment of conservation
  - Despite change in shape, object remains same
- Attainment of reversibility
  - Thing can turn into another & back again to original
  - E.g., water to ice and back to water

Stage of formal operations

- From 11 years to End of Adolescence
- Abstract thinking
  - Can understand deeper meanings
- Thinking becomes logical
- Concepts of permutation & combination, probability develops
- Development of hypothetic deductive thinking
  - Makes hypothesis by observing things

LEARNING THEORY

00:17:50

- Learning is acquisition of new behavioral pattern

Classical conditioning (Pavlov's experiment)

- A neutral stimulus also starts producing response, if paired repeatedly with one that results in a natural response
- Unconditioned stimulus: Smell of food
- Unconditioned response: Salivation
- Neutral stimulus / conditioned stimulus: Ringing of bell
- Conditioned stimulus is Paired with unconditioned stimulus
- Conditioned response: Salivation
- Extinct: If continue to ring bell and don't give food, leads to stoppage of salivation.
- Stimulus Generalization
  - Any ringing (Generalized) causes stimulus.
  - Can be seen in chemotherapy patients.

Operant conditioning

- Instrumental conditioning
- Given by BF Skinner
- Frequency of behavior change according to the consequences
- Positive reinforcement
  - Frequency of behavior increases because it leads to positive consequences.
  - E.g., chocolates after 1 hr. of study
- Negative reinforcement
  - Frequency of behavior increases in order to avoid a negative consequence
  - E.g., Cleans room to avoid scolding
- Punishment
  - Frequency of behavior decreases as it is followed by negative consequence
- Extinction
  - Frequency of behavior decreased because no reward or appreciation

PSYCHOTHERAPY

00:25:47

Behavioral therapy

- Systematic desensitization
  - Works on principle of reciprocal inhibition
  - If an anxiety provoking structures is provided, while a person is in a relaxed state, the anxiety gets inhibited
  - Used in phobias OCD
  - Person exposed to increasing degrees of exposures
- Therapeutic graded exposure or exposure & response prevention
  - Used in phobias OCD
  - Similar to systematic desensitization except there is no relaxation
- Flooding
  - Give max stimuli in the first exposure
- Modeling (Participant modeling)
- Assertiveness training
  - Assertive while asking for rights & saying no to unjust demands.
- Social skills training
- Aversive conditioning (Aversive therapy)
  - Uses classical conditioning
  - Treatment of unwanted behaviors (Such as paraphilias)
  - Asked to imagine, followed by giving a painful stimulus (Like electric shock)
  - Association develops between unwanted behavior & painful stimuli
  - Behavioral therapy is primary used for anxiety disorders, can be used for other disorders.
- Biofeedback

  00:31:20
  - Uses principle of operant conditioning
  - Basic ideas are that ANS, can be brought under voluntary control using operant conditioning
  - Used in disorder which are caused by dysfunction in autonomic systems such as tension headaches, asthma etc.
  - Uses a feedback instrument
  - That provides patient feedback about current state of specific autonomic functions
  - E.g.: an electromyogram may give patient feedback about muscle tone in a particular muscle.
  - Using this feedback patients learns to control the muscle tone and disorders (Such as bruxism)

Cognitive therapy

- Cognition (Thoughts) are important for development of

psychiatric disorders

- Early experiences, may lead to cognitive distortions (Wrong patterns of thinking)
- Cognitive distortions may lead to negative automatic thoughts
- Cognitive therapy
- Identify and correct negative automatic thoughts & cognitive distortions
- Cognitive behavioral therapy = Cognitive + Behavioral therapy

COGNITIVE DISTORTIONS

00:34:15

- All or nothing thinking
- Approval seeking
  - One should be like by all, otherwise life is terrible
- Disqualifying positive
  - Not acknowledging positive events
- Emotional reasoning
  - Belief that emotions reflect the reality.
  - If it doesn't feel okay, it's not okay
- Fallacy of fairness
  - Making random events as an issue of justice
- Jumping to conclusions
- Labelling mislabeling
  - Giving labels to self or others
- Magnification (Catastrophizing)
  - Giving lot of importance to an event
- Minimization
  - Giving less importance to an event than required
- Mental filtering (Selective perception)
  - Fixation on single thing not focusing on others
- Over generalization
- Personalization
  - Blaming self for event, for which one is not responsible.
- Should statements
  - Having a lot of rules about how self & others should behave.
  - Have lot of should statements.

SUBSTANCE USE DISORDERS (PSYCHOSOCIAL TREATMENT)

00:42:37

Transtheoretical model of change

- Pre-contemplation
  - Person taking substance does not think it's a problem
- Contemplation
  - Starts realizing that he has a problem, evaluates pros and cons
- Preparation
  - Takes a decision & starts planning
- Action
  - Quits and makes changes in behavior
  - Maintenance

NEUROPSYCHOLOGICAL TESTS

00:44:58

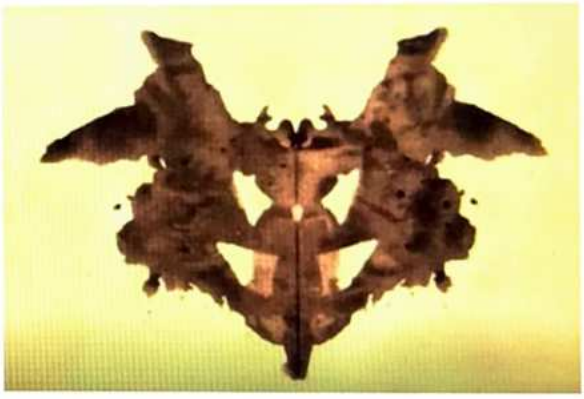
- Neuropsychology: Examines relationship b/w behavior & brain functioning
- Attempt is made to locate area of disturbance on basis of behavioral symptoms (Cognitive, sensory motor or emotional)

Intelligence testing

- Wechsler adult intelligence scale
- Malin's intelligence scale for Indian children (MISIC)
- Bhatia's battery of performance test of intelligence

Personality assessment

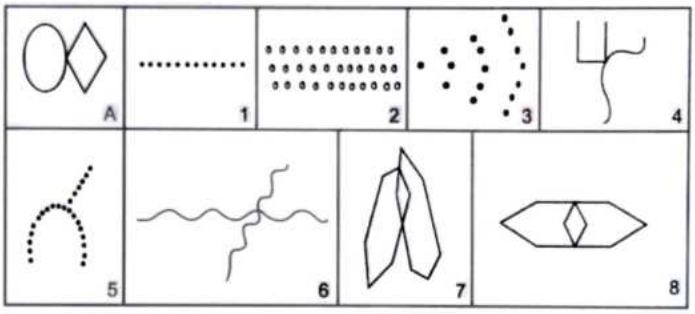
- Objective test
  - E.g.: Minnesota multiphasic personality inventory (MMPI)
- Projective tests
  - Patients are given ambiguous stimuli and he has to interpret it.
  - In doing so his internal thoughts process and emotional factors get projected
  - These can be analyzed to deduce the aspects of an individual's personality
  - Rorschach tests
    → Shown 10 cards that have ink blots.



  - Thematic apperception test (TAT)
    → Shown a picture, asked make a story

- Sentence completion test
  - → An incomplete sentence is given to patient and asked to complete
  - → E.g. I wish I---------
- Word association technique
  - → Patient is supposed to say first word coming in his mind on being given a random word.
- Drawn a person test (DAPT)
  - → Patient asked to draw something and then he is asked why he has drawn it.

- Neuropsychological assessment for brain disorder (Organic mental disorders) 00:51:17
  - Bender Gestalt test
    - → Screening tool for organic mental disorder



  - Luria Nebraska neuropsychological battery
  - Halstead Reitan battery of neuropsychological test

CLINICAL QUESTIONS

Q. When she was younger, a 20-year-old woman claims she was raised by an abusive father. Despite the fact that he has changed and is no longer abusive to her, she still feels apprehensive whenever she sees him. Based on psychological theory, what is the best reason for her anxiety?

A. Classical conditioning
B. Operant conditioning
C. Free association
D. Reaction formation

Answer: A

Solution

The father is a conditioned stimuli and abuse is an unconditioned stimuli. The fear is the conditioned response. Even without the abuse, the patient is fearful of the father. This is known as classical conditioning.

Reaction formation: Refers to the denial of an unacceptable impulse and the adoption of the opposing behaviour. This can lead to morality crusades or a prurient interest in the subject.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 101
Fish Clinical Psychopathology 4th edition, Page 130

Q. When a 42-year-old guy with a sexual interest in children (paedophilia) is shown a videotape of youngsters, he receives an electric shock. Later, he becomes nervous in the presence of children and avoids them. This example exemplifies which of the following management techniques?

A. Implosion
B. Biofeedback
C. Aversive conditioning
D. Flooding

Answer: C

Solution

Aversive conditioning is a management approach in which a maladaptive but pleasurable stimulus (for this man, sexual interest in minors) is matched with a painful stimulus (e.g., a shock) to create an association between the two.

Flooding is a type of behavioural therapy in which the highest level of stimulation is provided in the initial encounter.

Biofeedback--Uses the operant conditioning principle·Useful for autonomic dysfunction-related illnesses such tension headaches.·For example, EMG can be used to modulate muscular tone in conditions like bruxism

NOTE: Flooding is also called as Implosion.The most significant aspect of flooding treatment may be desensitisation of psychological and physiological complex structures. The implosive sessions are thought to represent supramaximal stimulation of pathologically excited and inert complex structures, resulting in protective inhibition, irradiation of excitation, reduction of excitation and inertness, and a decrease of the complex structures' overshooting autonomic reactivity, resulting in decreased anxiety, aggression, and other pathologically increased feelings.

Reference:

Kaplan and Sadock's Synopsis of Psychiatry, 11th edition, Page No 869-873

Astrup C. Physiological mechanisms of flooding (implosion) therapy. Pavlov J Biol Sci. 1978 Oct-Dec;13(4):195-8. doi: 10.1007/BF03002253. PMID: 34819.

Q. A 35-year-old female with severe depression with suicidal tendencies was brought to psychiatry OPD; she is going to be managed with Electroconvulsive therapy. She has a past history of epileptic attacks, she is on medication for arrhythmias,she is also having cerebral aneurysms, and she is HIV positive. What is a contraindication for ECT?

A. Arrthmia
B. Epilepsy
C. HIV
D. Cerebral aneurysm

Answer: D

Solution

A cerebral aneurysm is an absolute contraindication of increased intracranial tension. A significant increase in cerebral blood flow and blood flow velocity occurs as a result of ECT. The amount of oxygen used by the brain also rises. Rapidly rising systemic blood pressure may temporarily exceed cerebral autoregulation, resulting in elevated intracranial pressure. As a result, ECT is not recommended for patients who have a known space-occupying lesion (brain tumour), a head injury, or a cerebral (intracranial) aneurysm. Recent myocardial infarction, severe hypertension, cerebrovascular accident, severe pulmonary illness, retinal detachment, and pheochromocytoma are all examples of relatives.

LEARNING OBJECTIVES

Mental Health Care Act 2017

- Mental health care act 2017
  - Advanced directive
  - Nominated representative (NR)
- Spikes protocol
- Domestic abuse (spouse abuse)
  - Traits of perpetrator
  - Traits of wives who get abused

14 MENTAL HEALTH CARE ACT, 2017 (MHCA 2017)

- Rights of patients with mental illness and treatment delivery 00:52:32

A. Every person (Include patients with mental illness) is presumed to have capacity to make mental healthcare and Rx decision, if he
   - Can understand the information provided to them
   - Understands the consequences of his decisions
   - Can communicate their decision

B. Advanced directive 00:55:50
   - Every person (Not a minor) can make an advanced directive
   - How they wish to be treated / not treated for mental illness.
   - Applicable only if loss of capacity to take mental health care or treatment
   - Doctor must be provided advanced directive written and signed by patient
   - Duty of psychiatrist (Or mental officer) to follow it
   - Doctor not liable in case of unforeseen consequences

C. Nominated representative (NR) 01:01:28
   - Every person can appoint a nominated representative
   - In case of loss of capacity, NR would help in taking decisions about treatment

Important Information

- **Advanced directive always given priority over NR.**
- **If in case the decision capacity of the person remains intact despite mental illness, the decision of nominated representative will not be applicable.**

D. Admission
   - Independent admissions
     → Patient himself wants to be admitted
   - Supported admission
     → Patient admitted on the decision of NR

E. Ban on direct ECT

F. Ban on ECT for minors

G. Ban on psycho surgery

Important Information

- **Both ECT and Psychosurgery can be given if doctor strongly feels that it will help the patient. He must take permission from caretaker and must give an application to mental health review board. Only modified ECT can be given.**

H. Decriminalization of suicide attempt

I. Restrains and seclusions can be given
   - If it is the only way to prevent them to self or others
   - If authorized by psychiatric in charge

SPIKES PROTOCOL 01:02:20

- Protocol to break bad news to patients about their illness.
- **S** – Setting of interviews (Privacy concerns, involves significant others, sitting down)
- **P** - Assess the **P**atients' perception (What he knows / perceives about his condition)
- **I** – Obtaining the patients **I**nvitation (Find out how much patients want to know)
- **K** - Give **K**nowledge (Info about Dx, Rx & prognosis)
- **E** – Addressing the patients' **E**motions (Ask how he feels, show empathy)
- **S** – **S**trategy & summary (Plan a strategy)

DOMESTIC ABUSE (SPOUSE ABUSE) 01:04:15

- Usually involves assault on wife by husband
- Traits of perpetrator
  - Victims of abuse
  - Alcohol abuse
  - Immature, dependent & nonassertive
  - Those who feel threatened at work may abuse to improve self-esteem
  - Jealousy
    → May try to isolate the wife socially
- Wives who get abused
  - Have high dependence traits
  - Likely to have grown up in violent homes

Previous Year's Questions

Q. Provisions of WHO mental action gap are all except:

(AIIMS Nov 2018)

A. Human rights
B. Communication regarding care and carrier
C. Screening family members
D. Social support

PREP NUGGETS

Prep Nuggets

	Psychosen	Nerveses
Insight		
Delusions/Halluinations		

Prep Nuggets

Normal

	70 – 89
	50 – 69
	5 - 20

Prep Nuggets

	Delirium	Dementia
Onset		
Consciousness		
Course		