

A clinical study involves patients diagnosed with carcinoma whose tumor stage is T4N1M1. The patients' survival rate 5 years from the time of diagnosis is less than 50%, regardless of therapy. Which of the following clinical findings is most likely to be characteristic of this group of patients

- Cachexia
- Loss of sensation
- Cardiac murmur
- Icterus
- Splenomegaly

Q#:9

A 15-year-old girl has developed multiple nodules on her skin over the past 10 years. On physical examination, there are 20 scattered, 0.3-cm to 1-cm, firm nodules on the patient's trunk and extremities. There are 12 light brown macules averaging 2 to 5 cm in diameter on the skin of the trunk. Slit-lamp examination shows pigmented nodules in the iris. A sibling and a parent are similarly affected. Genetic analysis shows a loss-of-function mutation. Which of the following inheritance patterns is most likely to be present in this family?

- Autosomal dominant
- Mitochondrial
- . Multifactorial
- X-linked recessive
- Autosomal recessive

The typical Reed-Sternberg cells are either infrequent or absent. Instead, lymphocytic and histiocytic cells or "popcorn cells" are seen within a background of inflammatory cells, which are predominantly benign lymphocytes. Which type of Hodgkin's lymphoma best suit the description

- Lymphocyte depleted
- Lymphocyte predominance
- Lymphocyte rich
- Mixed cellularity
- Nodular sclerosis

A 54-year-old woman notes a lump in her right breast. Physical examination shows a 2-cm mass fixed to the underlying tissues beneath the areola and three firm, nontender, lymph nodes palpable in the right axilla. There is no family history of cancer. An excisional breast biopsy is performed, and microscopic examination shows Invasive ductal carcinoma. Over the next 6 months, additional lymph nodes become enlarged, and CT scans show nodules in the lung, liver, and brain. Which of the following molecular abnormalities is most likely to be found in her carcinoma cells?

- Amplification of the ERBB2 (HER2) gene
- Fusion of BCR and C-ABL genes
- Inactivation of one BRCA1 gene copy
- Deletion of one RB gene copy
- Mutation of one p53 gene copy

A 78 years old smoker presents with 8 months history of cough and worsening dyspnea. The patient has clubbing, his saturation is 93% on room air and he has fine basal inspiratory crackles in the lower zones. What is the investigation of choice to arrive at a diagnosis

- Bronchoscopy
- CT Pulmonary angiogram
- High resolution CT chest
- Pleuroscopy
- Spirometry

Q#20

Presentation of data refers to an exhibition or putting up data in an attractive and useful manner such that it can be easily interpreted. The three main forms of presentation of data are Textual presentation, Data tables, and Diagrammatic presentation. Low birth weight (LBW) statistics of a hospital are best represented using:

- Bar chart
- Dot plot
- Pie chart
- Histogram
- Frequency polygon

A 26-year-old woman has had malaise, arthralgias, and myalgias for the past 2 months. On physical examination, there is no joint swelling or deformity. Laboratory studies show a serum creatinine level of 3.9 mg/dL. A renal biopsy specimen shows a proliferative glomerulonephritis. She receives glucocorticoid therapy for 3 months. She now has left hip pain with movement. A radiograph of the left leg and pelvis shows patchy radiolucency of the femoral head. A total replacement of the left hip is performed, and gross examination of the femoral head shows collapse of articular cartilage over a pale, wedge-shaped, subchondral area. What is the most likely diagnosis?

- Enchondroma
- Osteoarthritis
- Osteomyelitis
- Osteonecrosis
- Renal osteodystrophy

Q#29

8. Milky appearance of semen is due to:

- a. Ascorbic acid
- b. Choline
- c. Seminal vesicle secretions
- d. Prostaglandin
- e. Prostatic secretions

Q#32

The florescence shown by semen under U/V light is due to :

- Acid phosphates
- Choline
- Creatine phosphokinase
- Lecithin
- Zinc

Q#:36

“Paltauf’s hemorrhages are observed in:

- brain in putrefaction
- drowning
- electrocution
- fall injury to the skull
- throttling

Brain death is certified when which of the following is observed:



Cessation of cardio vascular system occurs

EEG is straight for 5 minutes

PM lividity starts appearing

Respiration is ceased

Signs of brain stem death are positive

Q#40

In an experiment, bacteria are inoculated into aliquots of normal human blood that have been treated with an anticoagulant. It is observed that the bacteria are either phagocytized by neutrophils or undergo lysis. Which of the following blood plasma components is most likely to facilitate these effects?

- Complement
- Fibrin
- Kallikrein
- Plasmin
- Thrombin

Q#41

A cancer cell that is resistant to the effects of both vincristine and methotrexate probably has developed the resistance as a result of which of the following mechanisms?



Changes in the properties of a target enzyme



Decreased activity of an activating enzyme



Increased expression of a P-glycoprotein transporter



Increased production of drug-trapping molecules



Increase in proteins that are involved in DNA repair

Q#42

A 23 year old pregnant woman is referred by her obstetrician for elevation of anemia. She is in her fourth month of pregnancy. Her hemoglobin is 10g/dl. If this patient has a young child at home & is taking iron containing parenteral supplements, she should be warned that they are a common source of accidental poisoning in young children & advised to make a special effort to keep these pills out of her child's reach. Toxicity associated with acute iron poisoning usually includes which of the following?



Dizziness, hypertension & cerebral hemorrhage



Hyperthermia, delirium & coma



Hypotension, cardiac arrhythmias & seizures



Necrotizing gastroenteritis, shock & metabolic acidosis



Hyperthermia, delirium & coma & seizures

Q#43

A 50-year-old woman with rheumatoid arthritis was recently diagnosed with refractory disease, and infliximab was added to her ongoing treatment. Which of the following endogenous compounds was most likely the molecular target of the drug?

- Epidermal growth factor
- Interleukin -1
- Interleukin -10
- Tumor necrosis factor- α
- Vascular endothelial growth factor

Q#45

The most commonly used initial test used for HCV screening is which of the following:

- Liver biopsy
- Anti-HCV (ELISA)
- HCV RNA by PCR
- Liver function tests
- CT scan and Ultra sound

Q#46

The four measures of central tendency are mean, median, mode, and midrange. The median is almost equivalent to which value?

- 10th percentile
- 50th percentile
- 75th percentile
- 100th percentile
- Interquartile range

Q#48

A patient presents to their GP complaining of headache, fatigue and an intense itching which only ever occurs whilst in the bath or shower. Their blood results show high hemoglobin levels accompanied by erythrocytosis (increase in circulating RBCs). Which of the following genetic mutation is responsible for these symptoms.

- BCL-ABL
- BRCA-1
- c-myc oncogene
- JAK2 Kinase
- B2-microglobulin

Q#50

“Arborescent markings” are observed in death due to:

- Electrocution
- Flame burns
- Lightning
- Putrefaction
- Starvation

Q#:55

"Volitional activity" refers to:



Activity of perpetrator of crime when he is committing it



Any activity which provokes a person for murder



Physical activity during sleep



Physical activity of a healthy person



Physical activity of victim during fatal period

Q#56

The confirmatory test for the blood:

- Benzidine test
- Hemin crystal test
- Phenolphthalein test
- Precipitin test
- Takayama test

Q#57

A male of 50 years was diagnosed with Myasthenia Gravis 6 months ago and started on treatment. He presented to the medical OPD with complaints of increased fatigue, weakness, drooping of eyelids and difficulty in breathing since 2 days. The doctor injected 0.2mg of Edrophonium and observed the patient. He noticed that the symptoms of the patient got a little better. What is the most appropriate strategy to proceed with the management?

Add on another drug to the treatment

Decrease the dose of drugs used for treatment

Increase the dose of drugs used for treatment

Stop the drugs being given immediately

Use alternate group of drugs for treatment

Q#62

The reliable indicator of prognosis of malignant tumor

- Abnormal mitosis
- Degree of differentiation
- Invasiveness
- Pleomorphism
- Size of tumor

Q#65

Antimuscarinic drugs have limited usefulness in preventing bronchospasm. This limited efficacy is because of which of the following reasons?



Antagonism induced enhanced bronchial edema



Non-specific binding to muscarinic receptors



Non-muscarinic stimulation of the airways



Rapid dissociation from the receptors



Reversible binding to the M3 receptors

Q#68

47-year-old woman has had increasing pain and deformities in her hands for the past 10 years. On physical examination, she has metacarpophalangeal joint swelling, erythema, and tenderness. There is a subcutaneous nodule on the ulnar aspect of the right forearm. A biopsy specimen of the nodule shows central necrosis surrounded by epithelioid histiocytes. Which of the following therapies is most likely to be effective in this patient?

- Anti-TNF agents
- Bisphosphonates
- Broad-spectrum antibiotics
- Cell cycle inhibitors
- Uricosuric agent

Q#69

The study of designing equipment & devises that fit human body, its movements & its cognitive abilities”. This definition pertains to which one of the following choices

- Ergogenic aids
- Ergonomics
- Archeology
- Gerontology
- Anthropology

Q#70

Diagnosis of acute lymphoblastic leukemia in bone marrow requires:

- 15% blasts
- 20% blasts
- 25% blasts
- 30% blasts
- 35% blasts

Q#74

9. Mucoïd consistency of semen is due to:

- Amino acids
- Citric acid
- Fructose
- Glycogen
- Hydrochloric Acid

Q#75

A 60-year-old man presents with headaches and anemia. Investigations reveal an IgM paraprotein of 30 g/L. What is the most likely diagnosis?

- Burkitt's lymphoma
- Follicular lymphoma
- Lymphoplasmacytoid lymphoma
- b. Mycosis fungoides
- Mantle cell lymphoma

Q#76

The human blood can be differentiated from other species by:

- Benzidine test
- Hemin crystal test
- Phenolphthalein test
- Preciptin test
- Takayama test

Q#79

The average percentage of “secretors” is:

20%

40%

50%

60%

80%

Q#80

Powder tattooing is important feature of:

- Firm contact range
- Long range
- Loose contact range
- Medium range
- Short range

Q#81

A drug acts on the cholinceptors, activates the receptors and increases the release of acetylcholine. It crosses the blood brain barrier in high amount and is extensively distributed in the CNS. Which of the following is the most appropriate drug that fits this description?

- Ambenonium
- Methacholine
- Neostigmine
- Physostigmine
- Pyridostigmine

Q#83

A 35 years old female came to gynae OPD with complaints of irregular heavy vaginal bleeding. Which one of the following drugs is most appropriate for this patient:



Autoplex (anti-inhibitor coagulant complex)

Aprotinine

Feiba(anti-inhibitor coagulant complex)

Tranexamic acid

Vitamin K

Q#84

Leucomalachite green test is performed on:

- Bile
- Blood
- Saliva
- Semen
- Sweat

Q#85

While formulating your research question on PICO format, the “O” denotes

- Observation
- Obtainable
- Open-ended
- Optimum
- Outcome

Q#94

A student is planning a research study on the effects of a new teaching method on student engagement. Which of the following is the first step she should take in her research process?

- Choose a research design
- Collect and analyze data
- identify a sample Population
- Write up the study findings
-

Develop a research question or hypothesis

Q#95

In a research study analyzing the correlation between hours of study and exam scores. Which type of diagram can be used to visually represent and analyze the relationship between these two variables?

- Pictogram
- Histogram
- Line chart
- Bar diagram
- Scatter diagram

Q#96

A 48-year-old man was admitted to the emergency department with the chief complaint of an excruciating pain in his left ankle. The pain had started the previous night and increased over several hours. The patient reported that he sprained his ankle 1 week ago. On physical examination, the ankle appeared warm and tender, and the entire area was red and swollen. A synovial fluid analysis showed crystals engulfed by phagocytes. A diagnosis was made, and a pharmacotherapy was prescribed. Which of the following drugs would be most appropriate to treat the patient's pain?

- Allopurinol
- Aspirin
- Codeine
- Indomethacin
- Methotrexate

Q#98

A 3 years old boy was brought in to you in Pediatrics out-patients of Northwest Teaching Hospital. On examination, you observed a white lesions on the buccal mucosa which are pathognomonic for measles virus infection. These lesions are known as:

- Forchheimer's sign
- Koplik's spot
- non-blanching Rashes
- Peyer's patches
- Rose spots

Q#99

Battle's sign refers to the bruise:

- Bruise below the chin
- Bruise on patella
- Bruise on the natal cleft
- Bruises on the chest
- Retro auricular bruise

Q#101

A 30-year-old man has a pheochromocytoma of the left adrenal gland; a sibling had a cerebellar hemangioblastoma. He undergoes adrenalectomy, and on microscopic examination there is extensive vascularity of the neoplasm. Mutational analysis of the neoplastic cells shows that both allelic copies of a gene have been lost, so that a protein that binds to hypoxia-inducible factor 1-alpha is no longer ubiquitinated, but instead translocates to the nucleus and activates transcription of VEGF. Which of the following genes is most likely mutated in this man?

- APC
- BCL2
- HER2Neu
- MYC
- VHL

Q#105

The florescence of seminal stain under UV light is due to:

- Acid phosphatase
- Choline
- Lecithin
- Spermine
- Zinc

Q#106

A stab wound is called perforating wound when it has:

- Entry and exit wounds
- Entry into a hollow organ
- Entry into the body cavity
- Entry into the neck
- Entry into the skin only

Q#108

For the normal functioning of the brain and the nervous system Vitamin B12 plays a key role because it helps in synthesis of myelin. B12 is also essential for the formation of red blood cells. Choose the most appropriate option among the following regarding this vitamin.

It is a fat soluble vitamin

Deficiency of this result in microcytic hypochromic anemia

It is found in abundance in food of vegetable origin like potato, soya bean etc.

The physiological mechanism for its absorption requires intrinsic factor from stomach

It is complex organo-chlorine compound that can be converted to essential amino acid

Q#109

Milky appearance of semen is because of:

- Ascorbic acid
- Choline
- Prostaglandin
- Prostatic secretions
- Seminal vesicle secretions

Q#110

A 5 years boy is brought to eye emergency with a history of trauma to his right eye with a pair of scissor. on examination visual acuity is 6/18 in right eye and 6/6 in left eye. he has right inferio corneal perforation with prolapse of pigmented tissue through the laceration in the cornea. the prolapsed tissue is:

- cilliary body
- lens
- iris
- choroid
- ratina