







Learning objectives

- Define virginity.
- Discuss signs of virginity.
- Enumerate different types of hymen.
- Define rape as per PPC.
- Enumerate medico legal aspects of rape.
- Discuss examination of rape victim and accused.
- Define incest.

Virginity

- A virgin is a woman who has never had any sexual intercourse.
- Defloration means loss of virginity.

Signs of virginity

- The signs of virginity in a healthy woman are seen in the genitals.
- The labia majora are rounded, firm, elastic and completely close the vaginal orifice; Their lower portions fuse in the midline to form the posterior commissure.
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- The labia minora are two thin folds of skin within the labia majora.
- They are soft, small, pink and sensitive.
- Their low portions fuse in the midline and form a fault called fourchette.
- The depression between the fourchette and hymen is called fossa navicularis.
- The clitoris is small.

- The vestibule (space between the labia minora) is narrow ; and the fourchette and posterior commissure are intact.
- The fourchette and posterior commissure are intact.
- The fourchette and fossa navicularis disappear after rupture of the hymen leaving a more open vulva below and behind.

- The mucosa of vagina is rugose, reddish in color, sensitive to touch and its walls are approximated.
- The hymen is intact.

The hymen

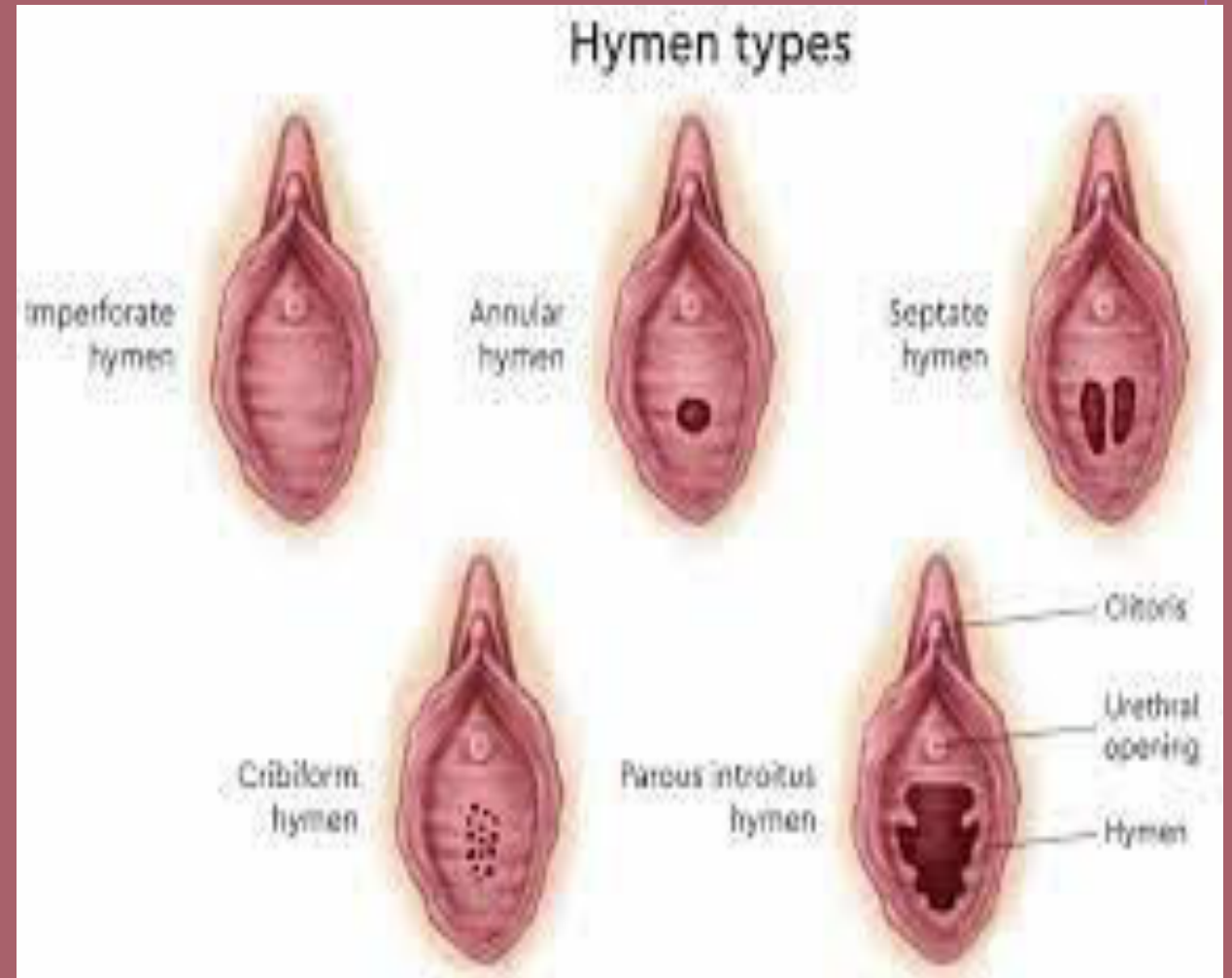
- The hymen is a membranous structure about 1mm thick.
- It varies in position, consistency, structure and shape.
- In children, the hymen appears as a taught membrane when the thighs are separated.
- When examined in a small girl in lithotomy position, it appears to be situated deeply because of the rotundity of the labia majora due to excessive fat content.

- As the girl approaches puberty, The hymen enlarges and gradually appears as a fold of mucous membrane and the thighs are separated.
- It reaches the adult form shortly after puberty being situated at the orifice of vagina and partially closing it.
- The hymen varies in consistency from a thin parchment like membrane to a firm and fleshy or tough and cartilaginous one, well supplied with blood vessels.

- It is supplied with blood vessels sufficient to cause recognizable hemorrhage when it is ruptured.
- It is not sufficiently distensible to admit the male organ without rupture.
- In unruptured state, it barely admits the tip of the little finger.

Shapes of hymen

- Annular or Semi lunar
- Imperforate
- Cribriform
- Septate
- Elastic and distensible



Causes of rupture of hymen

- First coitus
- Masturbation
- Trauma
- Sanitary tampons
- Gynecological examination

- The hymen is usually ruptured at the first intercourse and at first, only presents a torn appearance.
- With frequent intercourse the opening of the hymen is enlarged and after the birth of a child, the hymen is completely lost, its presence being represented by several small knobs of tissue known as carunculae hymenales or myrtiforms.



Imperforate



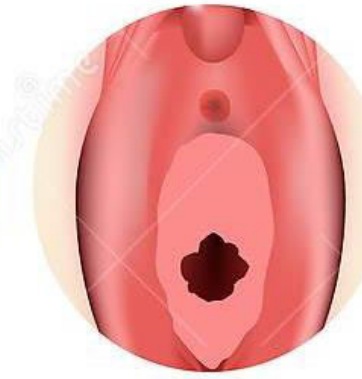
Annular



Denticular



Cribriform



Dentate



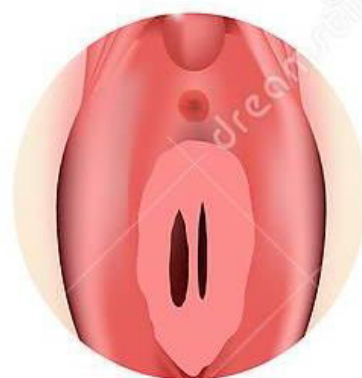
Crescentic



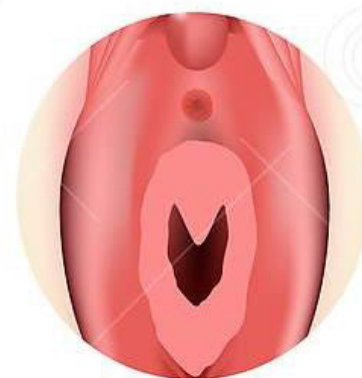
Labial



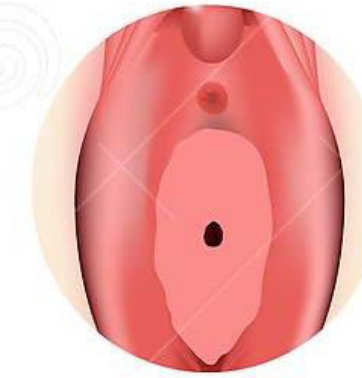
Fimbriated



Septate



Lunar



Microperforate



Parous Introitus

375 PPC. Rape

- A man is said to commit rape who has sexual intercourse with a woman under circumstances falling under any of the five following descriptions,
 - (i) against her will.
 - (ii) without her consent

- (iii) with her consent, when the consent has been obtained by putting her in fear of death or of hurt,
- (iv) with her consent, when the man knows that he is not married to her and that the consent is given because she believes that the man is another person to whom she is or or believes herself to be married; or
- With or without her consent when she is under sixteen years of age.

Incest

- This is the act of sexual intercourse by a man with a woman within a certain degree of blood relationship.

Medicolegal aspects of rape

- Rape and resistance
- Raping a woman in deep sleep
- Anesthesia and rape charges
- Rape by false impersonation
- False accusation of rape or feigned rape
- Rape by misrepresented facts



Examination of rape victim

step	description
Pre examination	Authority, consent, bio data information, establishment of personal identity
History	General, obstetric (in females) and specific
General impression	Dress , makeup and mental status
Examination of body general systemic genital	Built, stature, vitals and general injuries All organ systems Condition of the genitals and anal canal
Collection of specimens	From the clothes, body and genitals

General and obstetric history

- Medication within the last 24 hour
- Previous sexual experience and marital status.
- Menstrual history
- Detailed obstetrical history
- Change of clothes, general bath or washing of the genitals.

Specific history

- Time and place of the act
- Who removed the clothes
- Relative position during the act
- Pain during or after the act
- Violence used by assailant
- Penile penetration
- Whether ejaculation took place outside or inside

Examination of the clothes

- Make the examining stand on plain white cloth.
- Undressing by the examinee herself while standing on the sheet.
- Any items or material dropped during undressing should be collected for further examination in the laboratory to confirm the source of origin.
- Clothes are spread in proper light and inspected for any derangement, damage and staining.

Examination of the body

- General physical examination.
- Skin of whole body is inspected to locate injuries, stains, loose hair or any other form of trace evidence.
- Injuries may be bruises, abrasions or bite marks and should be palpated for tenderness.

Systemic examination

- Systemic examination of both assailant and victim should be done in all types of cases.
- It is necessary to rule out the possibility of subsequent false defense plea by the assailant on the grounds of physical inability or any systemic disease.

Genital examination

- Most important step of the examination.
- Findings of vagina and anal canal will depend upon physical disproportion between these canals and the penis of the accused and upon the extent of physical violence.
- Factors like time interval between the sexual act, previous experience of the sexual intercourse, first aid rendered after the act, change of clothes and washing of the parts modifies findings.

Vaginal examination

- It is performed in lithotomy position in a place properly equipped.
- Light should be adequate.
- There are four steps:
 1. Inspection
 2. Bilateral traction
 3. Digital examination
 4. Specular examination

Inspection (visual scrutiny)youtube

- Special attention is paid to the condition of labia majora and minora mons pubis and adjacent thighs.
- Note any redness, swelling, lesion, bleeding or discharge from vulva.
- Injuries, such as bruises or scratches, stains and loose hair in the area should be looked for.
- Pubic hair soiled or matted.

Bilateral traction

- It is performed to see the condition of the hymen.
- A female with an intact hymen is called *Virgo intacta*.
- In cases of laceration of hymen, the site and extent of a tear is an important feature.
- Determination of location is facilitated By use of Glaister keen glass rods by placing the lit end of the rod on the inner side of the hymen and moving it along the edges.

- The instrument is also useful in differentiating recent from old tears.
- Digital tears are incomplete and are situated either anteriorly or posteriorly
- Whereas tears due to sexual intercourse are complete and situated posterolaterally really extending beyond the hymenial attachment
- Extended injury occurs in cases of great disproportion
- If victim is virgo intacta, digital and instrumental examination must not be performed.

Digital examination

- It is meant to gauge the size, tone, any tenderness or laxity of the vaginal canal.
- It is done by introducing a gloved index finger into the vagina and moving its palmer aspect over the vaginal epithelium all around to note the degree of lateral pressure over the index finger and extent of rouginess on the bulb of the finger.

Specular examination

- It should be performed in sexually experienced women only.
- An appropriate size speculum is introduced into the vagina to inspect the condition of the vaginal mucosa, its roughness and to locate any bleeding, injury or any other condition of the vaginal mucosa.

- The cervical part of the uterus can also be inspected during this stage.
- The examination may be painful in cases of recent injury.
- This examination allows the inspection of vaginal mucosa.
- The bruises of the vaginal mucosa appear as dark brown areas mostly on the anterior wall in the upper third.
- Laceration of vagina usually does not occur.

List of specimen from victim

1. Clothes entire lot (bearing stains and soiling)
2. Loose and matted hair
3. Swabs
 - i) from the body
 - a) seminal stains (areas other than vagina)
 - b) salivary stains from bite marks

- ii) from the vagina
 - a) from introitus, perinium
 - b) from lower vagina (passing a swab just into the area above to hymenal boundary)
 - c) from high vagina
 - iii) from anal margins
 - iv) from the posterior fornix
4. Scrapings from undersurface of the nails.
5. urine for screening of drugs and venereal diseases.

6. Control specimen

i) Blood

ii) Plucked hair (2 each)

a) head hair

b) pubic hair

iii) Saliva

Examination of the accused

- The preliminary data
- Physical examination and mental condition
- Signs of struggle on the clothes and body
- Local examination of the genitals

The examination of the accused should always be made as soon as it is can be arranged for and the exact time and date should be mentioned.

Physical examination

- Note the size and physique of the assailant to determine the ability of the victim to offer resistance and to assess genital injuries sustained by her .
- The mental condition and any signs of drunkenness should be specially noted

Signs of struggle

- Injuries inflicted by the victim.
- Clothes should be examined for missing buttons or presence of foreign hairs, foreign fabrics, lipstick or makeup soiling, mud stains, grass etc.
- General marks of violence such as bites, bruises and scratches may be found on the face, hands or private parts.

Genital examination

- Seminal stains and blood stains may be found about the pubic hair.
- The blood stains if dry should be scrapped with a clean, blunt scalpel.
- The penis should be examined for the presence of smegma.
- The presence of a torn frenum is consistent with a recent intercourse.

- In a recent case the penis should be examined for the presence of vaginal epithelial cells on its surface unless the assailant has used a condom.
- The assailant should be examined to determine if there is anything to suggest that he is impotent.
- Blood can also be taken for grouping, and this may be of value if the group of the seminal matter found on the victim can be ascertained.

Opinion

- It should include both positive and negative findings.
- The opinion must be based on the recorded data.
- If the damage is to the vagina and female victim are proportionate to the size of the penis of the assailant, it should be certified accordingly stating that the medical examination findings are consistent with the allegation.

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fb/islamicAzikars