

Sexual Jurisprudence

- Impotency
- Sterility
- Virginity
- Pregnancy
- Delivery

Impotence

Definition: Impotence is the inability of a person to perform sexual intercourse.

- In medicine impotency refers to the inability to have erection of penis adequate for sexual intercourse.
- Usually males are active while females are passive.
- Hence; it is generally applied to the inability of the male to achieve and/or maintain penile erection & thus engage in copulation

STERILITY

DEFINITION: STERILITY is defined as incapability of fertilization or reproduction.

STERILITY means inability on the part of male to beget or on the part of female to conceive children

- About 10 to 15 % of couple are involuntarily sterile.

Question of impotency or sterility arises in

CIVIL CASES:

1. Nullity of marriage
2. Divorce
3. Adultery
4. Disputed paternity and legitimacy
5. Suits for adoption
5. Claim for damages where loss of sexual function claimed as a result of some accident or assault

CRIMINAL CASES:

Adultery, rape, and unnatural offenses,
where impotency is pleaded as defence.

CAUSES OF IMPOTENCY IN MALE

1. **AGE** : very old age but there is no specific age at which such loss of power occurs
2. **Defect of development and acquired abnormalities:**

A) Congenital

Klinefilter's syndrome, Primary testicular failure, Cryptorchidism, Congenital abnormalities like absence of penis, hypospadias, epispadias, accessory penis

B) Acquired

Partial/total amputation of penis,
Pre-pubertal castration

Local infection like filariasis, gonorrhoea

CAUSES OF IMPOTENCY IN MALE

3. Local diseases & trauma: large inguinal hernias, hydrocele, phimosis, paraphimosis and adherent prepuce may causes temporary impotence. injury to head, spine

4. Systemic disease : DM, TB, HTN, chronic nephritis

abuse of drugs- alpha blockers – atenolol, alcohol, opium, barbiturates, cannabis, tobacco, cocaine, datura- impotence

5. Functional/Psychological (most common)

● d/t fear, anxiety, emotional disturbance :

Frigidity (Sexual unresponsiveness):

- Analogue of impotence in the female.
- It means difficulty/inability to take part in sexual intercourse by a female.

Causes of frigidity

- These are Permanent and temporary

Permanent causes:

- Resulting from sexual abuse in childhood or traumatic sexual assault in adulthood

Temporary

- d/t dyspareunia i.e. difficult/painful coitus
- d/t vaginismus i.e. painful spasms of sphincter vaginae & levator ani with simultaneous spasmodic contraction of adductor muscles of thigh & erector spinae ; both of which makes penetration difficult.

It may be either

- Primary(no organic lesion)
- Secondary(d/t local infection)

Medicolegal aspects

CIVIL CASES :

1. Legally, marriage is a contract between man and wife in which sexual union between the two is presupposed. Hence, if impotence developing before /at the time of marriage, then the marriage can not be consummated & declared by the court of law as null & void
 - If impotence develops after the consummation of marriage then it can be only cited as a ground for divorce.
2. Disputed paternity

CRIMINAL CASES :

- In natural/unnatural sexual offences, the accused may plead that he is impotent & so can not be charged with the crime.

Examination of impotence

- ◉ Court order or police requisition
- ◉ Rape , unnatural sexual offences, divorce where ipmotence allged , or diputed paternity.
- ◉ Physical exam
- ◉ Systemic exam
- ◉ Local exam
- ◉ Neurological exam
- ◉ OPINION: NEGATIVE FORMAT.
- ◉ THERE IS NOTHING TO SUGGEST THAT THIS PERSON IS NOT CAPABLE OF PERFORMING SEXUAL

INTERCOURSE

EXAMINATION OF A CASE FOR DETERMINATION OF POTENCY

FM NO / / 2010
Date: / / 2010

To,

.....

Reference: Your letter / order no.....dated:

Name of the individual:.....

Age as stated :..... Sex:..... Marital status (If married, duration)

Address:

Occupation -

Brought & identified by (Name, signature & designation):.....

Date, place & time of examination:

Consent:

Q - Are you willing to be examined by me / us to opine in relation to your potency?

The examination will include physical examination, laboratory investigations and psychological assessment. The examination by dept of Urology would also include administration of drugs to evaluate your potency.

You have right to refuse but this refusal may go against you in the court of law.

Answer given – Yes / No

Name & Signature of the person giving consent -

Witness to the consent – Name, signature and date –

Identification marks –

1.

2.

History:

- Do you have erectile dysfunction? - Yes / No

- If yes
 - Since how long have you noticed the erectile dysfunction?
 - Did the problem begin abruptly or insidiously?
 - Do you have inability to achieve or maintain an erection or both?
 - Are you able to penetrate or not?
 - Whether partial penetration or ejaculation before penetration?
 - Do you ever get normal or near normal erection (During masturbation, with other partner, early morning)

- H/o any major illness – HT / DM / TB / Vascular disease / Endocrinal diseases etc.

- H/o STD-

- H/o mental illness-
- Any stress –
- Family environment –
- Any history of medication/ for what ailment /duration of medication
- H/o Drug abuse – Nicotine / ganja / alcohol/other
- H/o any head injury / spinal injury / any operation on genitals –
- H/o aversion dislike/ dejection / for any particular sex partner

General examination

- General built & appearance:
- Weight:
- Height:
- Teeth: Total No.
- Secondary sexual characters:
 - Beard: Moustache:
 - Axillary hairs: Pubic hairs:
 - Breast development / gynaecomastia if any:
- Any marks of injury / scar on the body:

Local examination:

(Along with Urology department)

1) Penis :

- ✓ Stretched penile length
- ✓ Length when erect
- ✓ Circumference (flaccid & erect)
- ✓ Disease / deformity / injury (if any)
- ✓ Sensation over glans penis
- ✓ Foreskin (Retractable / Non- retractable)
- ✓ Dorsal penile pulsation

2) Scrotum :

- ✓ Pendulous or not
- ✓ Developmental defects
- ✓ Deformities
- ✓ Cremasteric reflex

3) Testes :

- ✓ Whether present in scrotum or not
- ✓ Size
- ✓ Consistency

4) Prostate (Per rectal examination):

5) Bulbocavernous reflex:

6) Any evidence of S.T.D:

7) Effect of administration of _____ in _____ dose _____

After ____ minutes

Result:

Systemic examination: CVS, RS, GIT, CNS

Psychometric testing –Done by Dept of Psychiatry

Laboratory Investigations(if required)

- CBC –
- Hb –
- BSL (Fasting & PP)
- Sr. FSH
- Sr. LH
- Sr. testosterone –
- Sr. prolactin –
- VDRL –
- USG/ colour doppler –

Opinion

After detailed examination i.e. based on physical examination, psychiatric evaluation and examination by urologist, we are of the following opinion:

“There is nothing to suggest that the above examined person is capable/incapable to perform sexual intercourse”

Date :

Signature :

Place :

Name:

Designation

Registration no

Seal:

Sterility/absolute infertility

- It is defined as incapability of fertilization/ reproduction.
- **In males**, it is inability to fertilize the ovum or inability of the male to beget children.
- **In females**, it is inability to conceive/beget the child.
- A person can be sterile without being impotent or he can be impotent without being sterile, or both may co-exist.

- Normally, factors responsible for fertilization of ovum in males are
 - Normal spermatogenesis
 - Transport of the spermatozoa to the external uterine meatus
 - Deposition of these spermatozoa in the female genital tract

Causes (males)

1) Azospermatic :

(total failure to produce living spermatozoa)

- Seminiferous tubular necrosis
- Germinal aplasia

2) Oligospermatic :

(failure to produce living spermatozoa in sufficient no.)

- Klinefelter's syndrome
- Primary testicular failure

3) Local infections like

- mumps orchitis
- tuberculous epididymo-orchitis
- carcinomata
- exposure to radiation/drugs like cocaine, nicotine, alcohol, cannabis

4)Astenospermaticogenic : (defects in sperm movement)

- Idiopathic
- Spermatozoal structural defects
- Antisperm antibodies
- Genital tract infection

5)Normospermaticogenic :

- Structural/functional abnormalities in male
- Abnormal coitus habits
- Acrosomal defects of spermatozoa
- Immunological factors

6)Absent ejaculation

- d/t surgery, vascular occlusion, drug induced, diabetic neuropathy

Causes(females)

1) Congenital

- **Abnormalities of Vg like:** undeveloped, non canalized septate imperforate hymen
- **Abnormalities of Cx like:** elongated/conical/pinhole Os
- **Abnormalities of uterus like:**
 - absent/retroflexed
- **Abnormalities of fallopian tube like:** stenosed tube

2)Acquired

- d/t diseases of ovary, fallopian tube, uterus
- exposure to radiation /drugs

3) Hormonal dysfunction:

- d/t pituitary dysfunction
- d/t prolonged use of OC pills

4) Chromosomal abnormalities

- Turner's syndrome

Medicolegal aspect

- **Disputed paternity:** In this, father may plead that he is sterile, so he could not be father of the child
- **Compensation Claim:** A person may claim for damages for loss of reproductive capability as a result of surgical operation.
- Absolute infertility in the male is the prime indication of **AI(donor)**.

Investigation (in cases of sterility)

- Detailed physical, marital history
- G/E including examination of primary & secondary sexual characteristics
- Psychological assessment of the individual

Special investigation

Male

- Exam. of seminal fluid for morphology, no., motility.
- Detection of hormonal levels such as GnRH, FSH, LH, Test., Prolactin
- Transrectal USG for abnormalities of seminal vesicle

Female

- Evaluation of ovulation by
 - Basal body temperature charting
 - Mid-luteal progesterone levels
 - Endometrial biopsy
 - USG monitoring of ovarian follicles
- Evaluation of fallopian tube for patency by HSG

STERILISATION

- ◎ Definition: Sterilisation is a procedure to make a male or female sterile, without any interference with potency.
- ◎ Types :
 1. **compulsory**- order of state, mental illness, eugenic. Not done in India
 2. **Voluntary** : performed on married person with consent of both husband and wife.
 - a. **Therapeutic**: to prevent danger to health or life due to future pregnancy.
 - b. **Eugenic** : to prevent conception of physically or mentally defective child.

Methods of sterilisation

- Surgical :
- Radiological :
- Chemical :
- Mechanical :

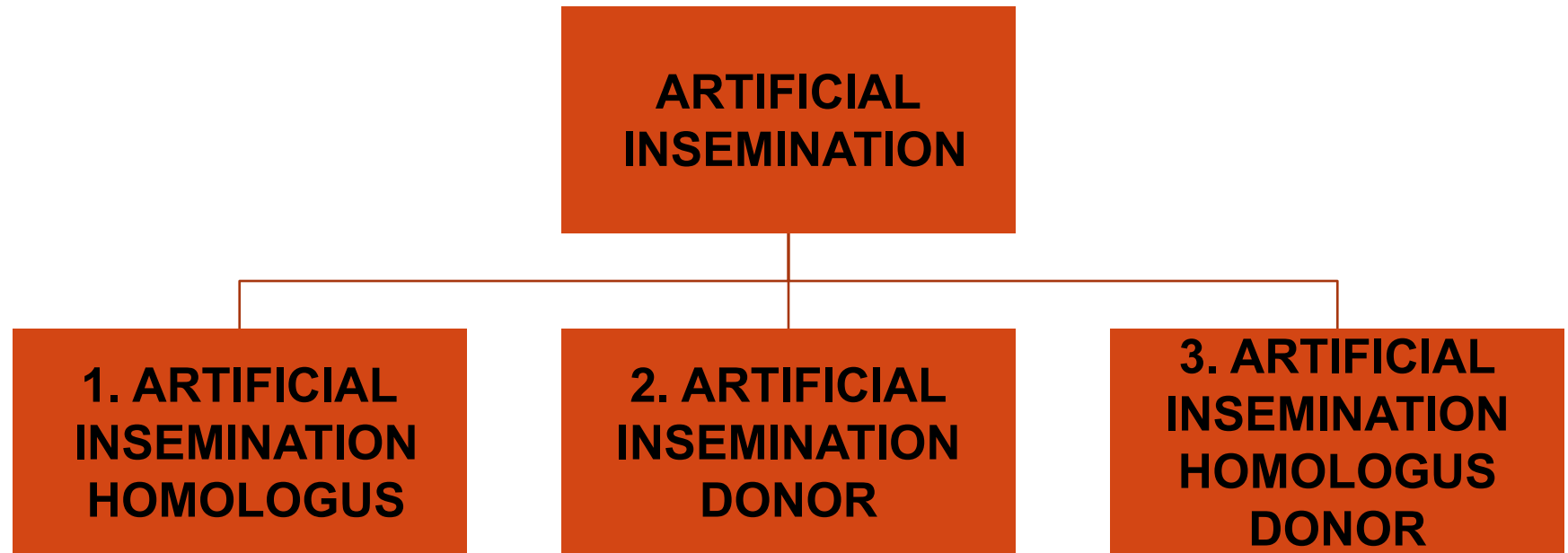
Permanent sterilisation: vasectomy in male or tubectomy in female, exposure to deep x ray in both sexes

Temporary sterilisation: coitus interruptus, loops, oral hormonal pills, foam tablet, condom, diaphragm, spermicidal jellies.

Artificial insemination

- It is the artificial deposition of semen into the vagina, cervix or uterus to produce pregnancy other than by coitus.
- This method was first used at the end of 13th century by John Hunter on the wife of Linen Draper where normal pregnancy occurs.

TYPES



Types:

1) Artificial Insemination Homologous(AIH):

-here, semen obtained from woman's husband itself

- Indication : Impotent but fertile husband

2)Artificial Insemination Donor/Heterologus(AID)

- here, semen obtained from a person other than the husband

- Indication :Sterile husband

- Genetic defects in the husband which definitely transmitted to the child

-Rh incompatibility between husband & wife

-Widows/unmarried woman desiring for the

Types:

3) Artificial Insemination Homologous-Donor(AIHD)

-here, mixture of the husband semen & donor

HOW TO OBTAIN SEMEN?

BY MASTURBATION

TIMINGS

Spermatozoa alive in female
Reproductive tract for short Period.
Therefore timing is Very important.

Frozen semen is commonly used in
A.I.D.

Procedure:

- Sterile syringe filled with 1ml of semen is introduced into/near the cervix at/about the time of ovulation.
- Pre-requisite:
 - Semen should be collected in wide mouthed sterile glass container by masturbation, after 3 days of abstinence.
 - Specimen should be used within 2hrs of collection, during which it is examined for morphology, number

PRECAUTIONS

1. **Consent:** Expressed written informed consent of the recipient & her husband, and donor & his wife.
2. Confidentiality : identity of donor must remain **secret**
3. Donor should **not know to whom the semen** is donated and result.
4. Donor should be mentally and physically **healthy** and free from any hereditary problems, familial disease.
5. The couple should be psychologically fit and emotionally **stable**

7. The race and characteristic (**morphology**) of donor should resemble the husband
8. Donor should be of same **blood group** that of husband.
9. A witness must be present when insemination is done
10. There should not be any RH incompatibility b/w donor and recipient
11. Donor must **not be the relative** of either spouse
12. **Wise to use pooled semen**

Criteria of donor:

1. Should be < 40yrs of age.
2. Should be potent & fertile.
3. Should have his own child.
4. Should be in sound physical and mental health.
5. Should be free from hereditary, familial & STDs.
6. Should not be related by blood to either the recipient or her husband.
7. Should be parity of race, religion & as much as morphological

LEGAL ASPECTS AS REGARD TO A I

1. Adultery

- Donor and recipient cannot be held guilty of adultery as semen obtained from masturbation (IPC 497)

2. Legitimacy

- The husband is not the actual father of the child and such the child is **illegitimate** and cannot inherit property
If A.I.H then child is legitimate.

3. Nullity of marriage and divorce

- When artificial insemination is done due to impotence of husband then wife can claim for nullity or divorce.
- Sterility is not ground for divorce

4. Legal suits:

- If defective child having congenital malformation is born, the doctor may be sued.

5. Natural birth

- If the child is naturally born to a couple after the child born by A.I. The status of child born by A.I remains illegitimate and that of natural child remains legitimate.

6. Unmarried women or widow

- Child would be illegitimate.

7. Incest

- There is risk of incest between child born

COMPLICATIONS

- Husband may feel humiliated
- Father may have bitter feeling if child is mentally retarded or physically deformed
- Mother may develop neurosis feeling that child belongs to her alone
- Child may have mental trauma if he comes to know the truth

OTHER METHODS OF ASSISTED REPRODUCTION

TEST TUBE BABY



In vitro fertilization & Embryo transfer

- Commonly known as ‘Test Tube Baby’ .
- It involves fertilization of an ovum outside the body and consequently transfer of the fertilized ovum (embryo) into the uterus of the woman.
- IVF is probably the most widely practiced assisted conception procedure in the world.
- The procedure does not need admission at any step and is conducted on an out patient basis.

Steps involved in IVF Procedure:

1. Ovarian stimulation by hormonal injections to produce multiple eggs
2. Monitoring of the response by ultrasound scans and blood tests
3. Egg retrieval with the help of a needle under local / general anesthesia
4. Fertilization of the eggs in laboratory
5. Transfer of the resulting embryo(s) into the uterus of the woman

Human embryos developing in vitro



OTHER TECHNIQUES

- Gamete Intrafallopian Transfer (GIFT)
- Pronuclear stage tubal transfer
- Zygote intrafallopian transfer (ZIFT)
- Micromanipulation techniques like
Zona drilling, Partial zona dissection, Perivitelline
sperm transfer, Intracytoplasmic sperm injection
(ICSI)

SURROGATE MOTHERHOOD



SURROGATE MOTHERHOOD

- It is called womb leasing
- On contract basis a hired women agrees to bear a child for someone else
- Here wife is infertile due to uterine complications like fibroids, malignancy, septate uterus, etc., But husband is completely normal
- Surrogate mother is not a

CLONING

- It is the technique of producing a genetically identical duplicate of an organism artificially.
- Clone is an organism that has same genetic information as another organism.
- a clone is said to be all descendents derived asexually from a single individual.

Thank you



Virginity, pregnancy and delivery

VIRGINITY (virgo intacta)

- **Virginity** : One who has never had experience of sexual intercourse.
- **Defloration**: One who had experience of sexual intercourse for once at least.
- **False virginity**: One who had experience of sexual intercourse but retains the signs of virginity.

The question of virginity arises in case of

- 1) Nullity of marriage
- 2) Divorce
- 3) Defamation
- 4) Rape

An intact hymen, a normal condition of the fourchette and posterior commissure, a narrow vagina with rugose walls, taken together maybe regarded as evidence of virginity but taken singly they cannot be so regarded.

Marriage and divorce

- Legally marriage is contract b/w man and woman, which implies physical union by coitus.
- Divorce (section 13 of Hindu Marriage act) means dissolution of previously valid marriage.

Ground for divorce .

1. Adultery
2. Unnatural sex practices
3. Cruelty
4. Incurable insanity
5. Leprosy
6. Venereal disease

Nullity of marriage

- ◎ Nullity of marriage (S-12 of HMA), i. e. marriage never to have existed in law.
- ◎ A marriage can be nullified when
 1. Either party was under the age of marriage contract
 2. one party was unsound mind at time of marriage
 3. One party was already validly married
 4. When the marriage has not been consummated due to impotence or willful refusal.
 5. When the woman was pregnant by

Signs of virginity

1. Extra genital signs

and

2. Genital signs

Extra genital signs:

- Virgin breast:

conical, hemispherical, elastic, firm non-pendulous with nipples small & non-pointed, at times retracted, surrounded by areola which is pinkish/brownish depending upon the complexion of woman

- Breast of woman with experience of repeated sexual intercourse:

becomes loose, lax, flabby, large & pendulous with prominent nipples & darkly pigmented areola

Genital signs

1) HYMEN-

- Double fold of mucus membrane arising from the posterior vaginal wall which covers the vaginal introitus like a diaphragm with a small meatus on it.
- It is a fold of mucous membrane about 1 mm thick, situated at vaginal outlet.
- In deflorated women the hymen is usually ruptured, therefore intactness of hymen may be taken to be the infallible proof of virginity.
- During the 1st act of intercourse the rupture usually occurs posteriorly at 5,6 or 7 o'clock position.

SHAPES / TYPES OF HYMEN

- 1) Semilunar/ crescentic-
commonest
- 2) Annular
- 3) Infantile
- 4) Cribriform
- 5) Vertical
- 6) Septate
- 7) Imperforate

Types

1. **Annular or circular-** in which the hymen forms a ring around the vaginal opening
2. **Dentate fimbriated or denticular hymen-** a hymen with an opening which has serrate edges
3. **Crescentric or lunar hymen,** a moon-shaped hymen.-- anterior , posterior
4. **Hymen bifenestratus-** a hymen with two openings side by side and a broad septum between them.
5. **Septate-**a hymen in which the opening is divided by a narrow septum.
6. **hymen subseptus-** a hymen in which the opening is partially filled by a septum growing out of one wall, but not reaching the other.
7. **Cribriform or fenestrated -** full of holes.
8. **Complete absence of hymen**
9. **Microperforate** --almost completely covers the opening but there is the opening which is very

Types of hymen



10-06-hymen_anatomy



10-06-hymen_annular



10-06-hymen_crescentic



10-06-hymen_cribriform



10-06-hymen_experi...



10-06-hymen_fimbriated



10-06-hymen_imperfo...



10-06-hymen_labial



10-06-hymen_parousi...



10-06-hymen_septate



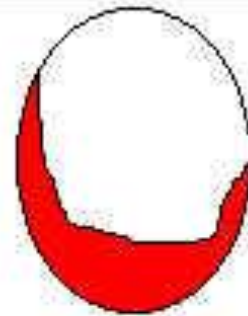
annular



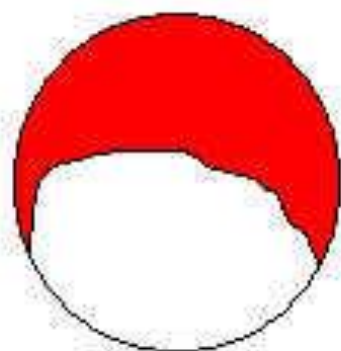
dentate



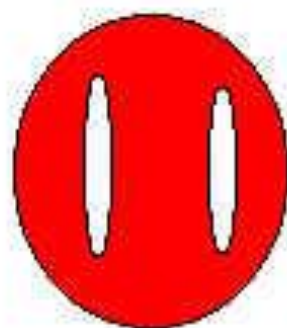
fimbriated



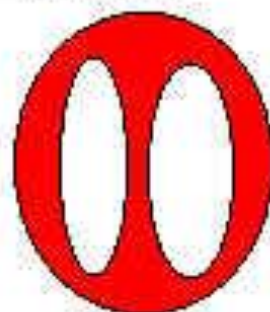
posterior lunar



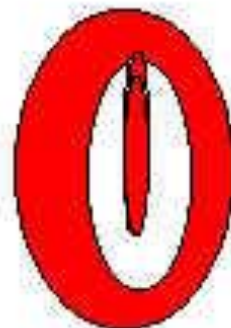
anterior lunar



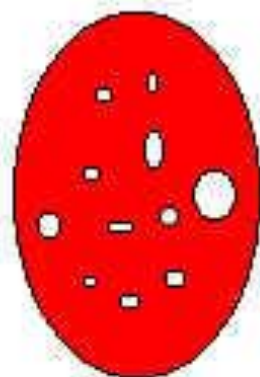
bifenestrate



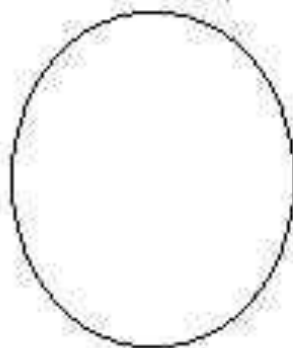
septate



subseptate



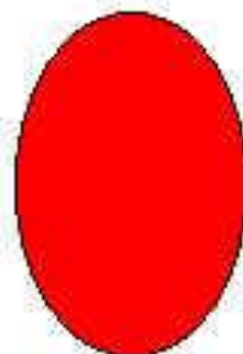
cribriform



complete absence of
hysteron



microperforate



imperforate

Hymen

- It used to be that on her wedding night, if a woman's first sexual intercourse (losing her virginity) was painful and there was blood on the sheets, that was proof that she was a virgin
- **Carunculae hymenalis**- in a woman who is habituated to sexual intercourse there will be multiple ruptures of hymen with presence of tags of hymenal tissue on the margin.
- **Carunculae myrtiformis**- after pregnancy and delivery hymen is almost abolished with presence of its remnant near the

2) **Labia majora**- two elongated folds of skin projecting downwards and backwards from the mons veneris. In a virgin they are thick, firm, elastic and rounded and lie in apposition

3) **Labia minora**- 4cm long thin folds of skin within the labia majora. In a virgin they are soft, small, pink and sensitive.

4) **Clitoris**- Small

5) **Vestibule** (space between labia minora)- is a triangular surface extending from the clitoris above to the anterior margin of hymen below, laterally to labia

- 6) **Posterior commissure** (lower meeting point of labia majora) and fourchette(lower meeting point of labia minora)- in a virgin they are intact. Fourchette is usually lacerated during childbirth.
- 7) **Fossa navicular(space** between fourchette & hymen) is intact in virgin.
- 8) **Vagina-** narrow and tight, the mucose is rugose reddish, sensitive to touch and walls are approximated. After frequent sexual intercourse the

FALSE VIRGIN-

FALSE VIRGIN- is a woman who has lost virginity but does not show the signs of defloration i.e. retains the signs of virginity.

- In a few percentage of women, the hymen may remain intact even after multiple acts of coitus.
- This may occur when the hymen is thick, tough, fleshy, elastic and loose, which permits displacement, distortion and stretching without rupture.

CAUSES OF RUPTURE OF HYMEN IN A VIRGIN

1. **Accident-** Accidental fall on a projected object
 - In these cases tearing of the perineum occurs and usually injuries on other parts of the body will be seen.
 - Such hymenal tears are never associated with abrasions and bruising of the margins.
 - Hymen does not rupture by jumping, riding, dancing etc.
2. **Masturbation-**hymen may be be

CAUSES OF RUPTURE OF HYMEN IN A VIRGIN

4. **Foreign body**- sola pith introduced into vagina for rendering very young girls fit for sexual intercourse.
5. **Diseases & irritation** e.g. diphtheria, threadworm infection, fungus and other diseases
6. Scratching due to irritation of parts from lack of cleanliness

- Common site of rupture of hymen following sexual intercourse:

Posteriorly, on one or both sides of midline or on midline.

- Common site of rupture of hymen following masturbation:

Usually on the anterior aspect, as manipulation is mostly confined anteriorly; does not extend upto the margins & may be associated with abrasion & bruise, finger nail scratches & redness.

Conditions where hymen not ruptured even after repeated sexual intercourse

1. Loose & much folded
2. Thick & tough in texture
3. Elastic & distensible
4. Fimbriated

Hymenoplasty

- An operation for repair of rupture of hymen will restore it to its intact state. Can be made out by careful examination.

Medicolegal aspects of virginity

Civil cases:

1. Nullity of marriage: where virginity is proof of nonconsummation
2. Divorce
3. Defamation of character

Criminal cases:

Loss of virginity may be offered as an index of sexual intercourse to substantiate a charge of rape.

Features	True virginity	Defloration
1)Basic difference	No experience of sexual intercourse	Experienced with sexual intercourse
2)Hymen	Not ruptured	Ruptured
3)Introitus	Does not admit more than tip of finger	May admit 2 fingers
4)Labia majora	Firm & lie in close apposition on both sides	Seperated & flabby
5)Labia minora	Pink, soft & sensitive to touch, completely covered by labia majora	Elongated,brownish,n ot sensitive to touch, not completely covered by labia majora

Features	True virginity	Defloration
6)Posterior commissure	Intact	Torned
7)Fourchette	Intact	Torned
Vestibule	Narrow	Wide
8)Fossa navicularis	Intact	Disappeared
9)Vagina	- narrow - walls firm - marked rugosities seen	- wide,deep,capacious - walls yielding - rugosities less marked out
10)Breasts	Firm	Flabby

Pregnancy

- Definition: Physiological condition develops in the female due to fertilization of ovum by spermatozoa & later on developing embryo or foetus in the uterus till its birth
- Duration of normal pregnancy is usually 280 days (40 lunar weeks) from the first day of last menstrual period.

Medicolegal aspects

1. To avoid appearing in the court as witness
2. To differ execution of death sentence or rigorous imprisonment
3. Woman pleads pregnancy soon after death of husband:
 - to grab husband's entire property
 - claims more compensation from the authority whose negligence led to her husband's death

4. To get more alimony in case of divorce
5. Marriage will be declared nullified, if woman is pregnant at the time of marriage
6. Allegations of pregnancy in widows, unmarried girls & also on the married woman from whom the husband is living apart & had no access to wife during that period
7. When woman blackmails a man accusing him to have impregnated her & compels him to marry her or claims damages for breach of promise of marriage

8. Pregnancy is alleged to be the reason or motive to commit suicide or murder of unmarried girls or widows
9. Cases where the woman is charged with alleged concealment of pregnancy, abortion or infanticide
10. Charge of adultery against a person alleged to be responsible for pregnancy of a married woman whose husband is living apart

11. When pregnancy is claimed to the result of rape, kidnapping & seduction
12. Working woman are allowed additional leave facility while pregnant (maternity leave)
13. Defamation & compensation case can be brought against, for bringing false allegation of pregnancy against unmarried woman or widow

Pregnancy

- Signs of pregnancy are classified as :
 1. Presumptive
 2. Probable
 3. Positive /confirmative

Presumptive signs

- 1) Amenorrhea: This is the earliest and one of most Important , symptom of pregnancy. The periods may be missed for some time in unmarried woman after illicit intercourse simply from fear and nervousness. In married woman the periods may stop for some time, when there IS n intense desire for pregnancy. Women who have never menstruated may become pregnant, and pregnancy may occur in a woman during lactation

Presumptive signs

2) Changes in Breasts: Breast Changes are quite characteristic but are of less value. A sense of tenseness and tingling in the breasts is frequent in early weeks; After the second month, breasts begin to increase in size and become nodular due to hypertrophy of the mammary alveoli. As they become still larger, the superficial veins are seen more distinct and enlarged, the nipples more deeply pigmented and more erectile and the areola which is pink in the virgin, gradually become dark-brown nipple. the sebaceous glands become enlarged by the end of second month

- Colostrums is secreted usually by the third month.

- which can be expressed from the breast by

- 3) Morning Sickness: It usually appear about the end of the first month felling of nausea and vomiting it varies greatly in severity and is not reliable
- 4) Quickening: From about the 16th to 20 week, the pregnant woman feels movements of the foetus, and the first appeared is known as quickening
- 5) Pigmentation of the Skin :. The vulva and abdomen become dark. Due to the deposit of pigment. dark line extends from the pubis to the umbilicus known as **linea nigra**
- 6) Changes in the Vagina : The mucous membrane of the vagina becomes dark

Presumptive signs

- 7. *Striae gravidarum* - Multiple transverse or oblique stripes appear over abdomen, including the flanks which are the result of fibrous change in the tissue, which occurs due to over-stretching of the abdominal wall.
- 8. Increase in the *frequency of micturition*
This occurs in 2 phases of pregnancy.
During the first trimester, when the uterus enlarges in size, it exerts pressure over the urinary bladder and there is increase in the frequency of micturition
- 9. Easy *fatigueability and irritable tempe*

Probable sings :

- 1. *Enlargement of the abdomen* - With increase in the size of the foetus and the uterus, the abdomen enlarges. But this does not occur until the duration of pregnancy is 12 weeks.
- 2. *Height of Uterus* - The increase in the size of the uterus follows more or less a definite rule during t, it is he period of pregnancy.
- Up to the 12th week of pregnancy not palpable per abdomen.
- At th end of the 12th week it may be just palpable above the symphysis pubis.
- After 16th week, it is 2" above the symphysis pubis.
- At the end of 24th week, it is at the level of the umbilicus.

- *3. Hegar's Sign* - During the 2nd month of pregnancy, the body of the uterus becomes soft. The cervix remains comparatively firm. Hegar's sign is elicited by bimanual examination. 2 fingers of one hand is placed at the posterior fornix and fingers of the other hand is placed over midline, just above the symphysis pubis. Fingers of both the hands are brought closer, when the isthmus, part of the uterus is appreciated as soft compressible zone in between the very soft uterine body and firm and tough cervix below. Hegar's sign becomes positive by the end of 6th week of pregnancy.
- *5. Goodell's sign* - By the 4th month after pregnancy, the cervix is reasonably soft. This change starts occurring from the later part of

6. *Uterine Souffle* - With increase in the size of uterus and the foetus inside, the circulation of blood in uterus is also increased. This increase in circulation causes flow of more amount of blood inside the uterus through the uterine vessels and thus, when the lateral aspects of fundus is auscultated, murmur is heard, which synchronises with the mother's pulse beat.

It becomes appreciable from the end of 4th month.

Uterine souffle must not be confused with foetal heart sound, which is more rapid in its rate and does not synchronise with the mother's pulse.

- 8. *Braxton-hick's sign* - After 15 - 16 weeks of pregnancy, there is intermittent contraction and relaxation of uterine muscles. The duration of each contraction is for about a minute and the duration of relaxation is for about 5 minutes. The contraction is not a forceful one and is painless. Intermittent contraction may also occur due to other reasons of enlargement of uterus, including soft new growth.
- In case of pregnancy, there is secretion HCG, at placental level. Thus, HCG can be detected in the pregnant woman's serum and urine. It becomes detectable by the 2nd week of pregnancy and its concentration increases gradually with progress of gestation. The test for

Positive signs of Pregnancy

1. *Auscultation of foetal heart sound* Foetal heart sounds are detectable after 18 - 20 weeks of pregnancy. The rate of foetal heart beat is about 160jmt at the early phase and about 120jmt near the terminal phase of pregnancy. Their location on the mother's abdomen varies according to the intrauterine position of the foetus. F.H.s. is not synchronous with mother's pulsation. So the two can easily be differentiated.
2. *Palpation of foetal parts* per abdomen is positive sign of pregnancy from 4th month onwards
3. *Perception of foetal movement* is possible from 5th month of pregnancy.
4. *Shadows of foetal bones by X'Ray* examination are available after 3rd month, when in X' Ray

Delivery

Definition:-

Expulsion or extraction of the child at birth.

Questions of delivery occurs in cases of:--

1. Abortion
2. Infanticide
3. Concealment of birth
4. Feigned delivery
5. Legitimacy
6. Divorce
7. Chastity
8. Blackmail

Signs of recent delivery in living:-

1.General Indisposition:-

For first 2-3 days the woman is

- Pale
- Exhausted
- Ill looking
- With slight increase in pulse & temperature

2.Breast:-

- Full enlarged and tender with knotty feeling.
- Colostrum or milk may be expressed
 - presence of colostrum indicates that delivery has taken place within a few days.
- Areolae are dark, nipples enlarged
Montgomery are seen.

3. Abdomen

- Pendulous
- Wrinkled
- Linea alba present:-

These are irregular, white or silvery subcutaneous scars.

They are not formed always and if formed may disappear.

4.Perinium:-

May be lacerated .

Age of tear may be of value in deciding the date of delivery.

5.Labia:-

Tender, swollen,bruised or lacerated

6.Vagina:-

Smooth,relaxed

Tears may be present that may heal by 7th day.

Rugae begin to reappear by 3rd week

7.Uterus :

- Contracted and retracted.
- Body like hard muscular tumour.
- Upper border of body lies about 3cm below the umbilicus
- Then it diminishes in size by 1.5 cm a day.
- On sixth day the upper border is midway between umbilicus and pubis
- 9 weeks uterus returns to normal condition.

8.Cervix:

- Soft and dilated
- Edges torn and lacerated transversely
- Internal os begins to close within 24 hours
- External os soft and patent ,admits 2 fingers

At end of 1 week 1 finger is admitted.
closed in 2 weeks

9.Intermittent uterine contractions:
present for 1st four days.

10.Pregnancy tests positive till 10 days.

11.Lochia:

Discharge from uterus lasting for 2to 3 wks with sour disagreeable odour.

First four days its has dark red with clots(Lochia rubra).

Next 4 days serous and paler in colour. (Lochia serosa).

9th day yellow grey or turbid until it disappears. (Lochia serosa)

NOTE: In self delivery scratches may found on neck

of infant due to finger nails of mother trying

SIGNS OF RECENT DELIVERY IN DEAD

1. All the local signs mentioned before are present
2. Size of uterus varies with period of gestation and time of delivery at which death occurs.
3. Flabby for one or two days then resumes its Firmness.
4. Immediately after uterine wall is 4 to 5 cm thick
5. Weight of uterus:
After delivery at terms-1000g
At the end of 1 weeks -500g

6.Cavity of uterus obliterates by apposition of anterior and posterior wall:

	Length(cm)	Breadth(cm)
At term	20	15
2to3days	17.5	10
1week	13-14	5
2weeks	<12	5
6weeks	7	5(normal)

7.Placental site :

- After delivery-15cm,irregular,elevated,covered with lymph node and portion of decidua.
- End of 2wks -3to4cm
- End of 6wks -1to2cm

8.Ovaries and fallopian tubes:

Usually congested and become normal in few days.

9.Peritonium covering the uterus :

Shows folding that soon disappear

10.Bladder :

Shows oedema and hyperaemia

*SIGNS OF REMOTE DELIVERY
IN
LIVING*

1.Abdomen:

Laxed, shows multiple scars on lateral aspect, Linea Nigra usually present.

2.Breast:

Laxed, soft and pendulous. Mostly wrinkled and may show linea albicantes
Nipples enlarged ,areole dark ,Montgomery's tubercles
Usually present.

3.Vulva:

Partially open

Perinium may show old scars of tear

4.Cervix :

- Length of body twice the length of cervix
- Irregular and edges shows scars
- External os transverse irregular and fissured.
- Internal os is not well defined

SIGNS OF REMOTE DELIVERY
IN
DEAD

- Uterus is larger heavier and thicker
- Walls are concave from inside forming wider an rounded cavity
- Body is twice the length of cervix.
- Cervix is as that of parous uterus in living.

Thank you