

Medico legal Importance of Impotence & Sterility

Definition

- **Impotence-:** It is defined as inability to perform the act of sexual intercourse.
- **Potent-:** Refers to a male, capable of performing sexual intercourse.
- **Frigidity-:** Inability to maintain the sexual arousal, in females.
- **Sterility-:** Inability to procreate a child by male & inability to conceive a child by female
- **Infertility:** failure to conceive after 1 year of unprotected and regular intercourse.

Medico legal Aspect of Impotence & Sterility

■ Civil Cases-:

- a. **Nullity of Marriage-** Impotence in the male existing since before marriage & being permanent is a valid ground for nullity of marriage & female can get divorce on this ground as per Hindu marriage act.
- b. **Disputed Paternity-** When the alleged father states that being impotent or sterile, he can not be the father of the child.
- c. **Compensation** due to loss of sexual function.

Medico legal Aspect of Impotence & Sterility

■ Criminal Cases-:

- a. **Rape-** When Impotence is pleaded as defense with behalf of the accused male.
- b. **Adultery-** When Impotence is pleaded as defense with behalf of the accused male.
- c. **Unnatural Sexual Offence-** When Impotence is pleaded as defense with behalf of the accused male.
- d. **Impotence / Sterility-** Resulting from assault or injury.
- e. **Disputed child-** When mother puts forth a suppositious child.

Common Causes of Impotence

- I. **Vasculogenic-:** The most frequent organic cause of Erectile Dysfunction is the disturbance of blood flow to & from the penis.
- II. **Neurogenic-:** Disorders that affect the sacral spinal cord or autonomic nerve fibers to the penis
- III. **Endrogenic-:** Low level of Testosterone causes erectile dysfunction.
- IV. **Diabetic-:** It is due to diabetes-associated vascular & neurogenic complication.
- V. **Psychogenic-:** Anxiety, Depression like psychological disorder causes erectile dysfunction.
- VI. **Medicine-:** Thiazoid diuretics, Beta blocker etc.

Other Causes of Impotence

Sr.		Male	Female
1	Age	Before Puberty & After Old Age	No Age limit
2	Congenital Malformation	Absence of Penis, Rudimentary Penis, Double Penis, Intersex States, Penis adherent to scrotum	Absence of Vagina, Infantile Vagina, Occlusion of Vagina, Adhesions of Labia, Imperforate hymen.
3	STD & other disease	Syphilis, Gonorrhea, Priapism, Phimosis & Paraphimosis.	Vaginismus, Ulceration / Chancre of Vagina, Prolapsed uterus, Carcinoma of Vagina.
4	Injury	Spinal cord	--

Causes of Sterility in Male

- I. **Primary Hypogonadism-:** decrease FSH.
- II. **Secondary Hypogonadism-:** decrease FSH & LH
- III. **Disordered sperm transport-:** Obstructive abnormalities of the vas deference or epididymis
- IV. **Acquired disorder-:** Viral Orchitis (especially Mump), Tuberculosis, STD etc.
- V. **Medicine-:** Chemotherapy
- VI. **Temperature-:** Prolonged elevation of testicular temperature.
- VII. **Environmental Toxin-:** Impaired spermatogenesis.

Causes of Sterility in Male

- VIII. **Age-:** Before Puberty & Old age.
- IX. **Congenital Malformations-:** Absence of Testes
- X. **Carcinoma-:** Testes & Epididymis
- XI. **Infection-:** Testes, Epididymis & Vas
- XII. **Idiopathic** Azoospermia or Oligospermia-:
- XIII. **Injury-:** Both Testes
- XIV. Heavy **Metal Poisoning-:** Lead, Arsenic etc.
- XV. **Operation-:** Vasectomy, Orchidectomy.

Causes of Sterility in Female

- I. **Ovulatory Dysfunction-:**
 - a) Hypothalamic / Pituitary causes.
 - b) Polycystic Ovary disease.
 - c) Premature Ovarian failure
 - d) Uterine or Outflow tract disorder
- II. **Tubal Defect-:**
- III. **Endometriosis**
- IV. **Other disease-:** TB, STD, DM etc.
- V. **Age-:** Before Puberty & After Menopause
- VI. **Congenital Malformation-:** Absence of Ovaries,
Absence of Uterus or Ovaries
- VII. **Acid discharge from vagina**

Causes of Sterility in Female

VII. Injury to both Ovaries-:

VIII. Heavy Exposure to Radiation-:

IX. Heavy Metal Poisoning-:

X. Drug Addiction-:

XI. Operation-: Tubectomy, Oophorectomy,
Hysterectomy.

Medical examination for Impotence & Sterility - Requirement

- Reference of requisition letter or order.
- Preliminary data.
- 2 marks of identification.
- Written informed consent.

Medical examination for Impotence

1. History-:

- a. Especially of illness, nervous & mental diseases.
- b. Sexual history.

2. General examination-:

3. Systemic examination-:

- a. CNS
- b. Psychological problems.
- c. Any signs & symptoms of STD.

Medical examination for Impotence

4. Local genital examination-:

- a. Development of secondary sexual characters.
- b. General development of genitals.
- c. Any congenital anomaly in genitals.
- d. Any local disease in genitals.
- e. Any mechanical obstruction to sexual intercourse
eg. Large hydrocele, scrotal hernia, elephantiasis.
- f. Any growth or carcinoma of genitals.

Medical examination for Impotence

5. **In case for nullity of marriage-** also ensure
 - a. That the cause for impotence is existing since before marriage.
 - b. That the cause for impotence is permanent & can not be corrected even after surgery.
 - c. That impotence exists in relation to the marriage.

Medical examination for Sterility

1. **In male-:** semen is examined. It is collected by masturbation, after one week of abstinence (Not performing sexual intercourse). If normal....
 - a. The volume in each ejaculate is 3.5 ml
 - b. Spermatozoa/ ml 60 – 120 million
 - c. Motility of spermatozoa total 80%
 - d. 80% motile spermatozoa have complete & intact morphology.

Medical examination for Sterility

- 2. **In Female-:** She has supposed to be, if
 - a. Normal Secondary sexual characters.
 - b. Normal development of genitals.
 - c. Normal menstruation (Menstrual History).
 - d. Ovulation present (Ovulation Study).
 - e. Uterus of normal shape & size (USG Abdomen).
 - f. Patent fallopian tube (USG Abdomen).
 - g. Normal hormonal balance (Hormonal Study).

Sterilization

Definition-: Sterilization is a procedure to make a male or female person sterile, without any interference with sexual potency.

Type-:

- I. **Voluntary-** It is performed on married person with the consent both the husband & wife.
- II. **Compulsory-** It is performed on a person compulsorily, in order of the state. It may be carried out on mental defectives, sexual pervert, epileptics & recidivist criminals.

Voluntary Sterilization

Type-:

- I. **Therapeutic Sterilization**- This is performed to prevent danger to the health or life of the woman due to further pregnancy.
- II. **Eugenic Sterilization**- When the sterilization is performed to prevent the conception of children who are likely to be physically or mental defectives.
- III. **Contraceptive Sterilization**- It is performed to limit the size of the family also c/as Family Planning.

Method of Sterilization

- I. **Vasectomy-:** The permanent sterilization in the male is called as 'Vasectomy'. It is effected by cutting of Vas (NSV). After vasectomy, the patient should be advised to refrain from intercourse for two months.
- II. **Tubectomy-:** The permanent sterilization in the female is called as 'Tubectomy'. It is effected by ligature of both fallopian tubes.
- III. **Temporary Sterilization-:**
 - a. Use of Diaphragm (female) & Condom (Male)
 - b. Use of intra-uterine contraceptive (copper-T)
 - c. Oral Hormonal pills
 - d. Use of spermicidal jellies or foam.

Medico legal Aspects

- I. Failure of contraceptive measure adopted by male may be cause to suspect the wife to have a sexual relationship with any other man which may **litigacies like divorce, disputed paternity.**
- II. Failure of sterilization procedures is the most common basis for the birth related actions called 'wrongful conception' or wrongful pregnancy' cause **action by parents against surgeon.**

Artificial Insemination

Definition-: The deposition of semen into the vagina, cervix or uterus by instruments to bring about pregnancy.

Type-:

- I. **Artificial Insemination Homologus (AIH)-** The deposition of semen of **husband** into the vagina, cervix or uterus by instruments to bring about pregnancy.
- II. **Artificial Insemination Donar (AID)-** The deposition of semen of **donar** into the vagina, cervix or uterus by instruments to bring about pregnancy.
- III. **Artificial Insemination Homologus Donar(AIHD)-** The deposition of semen of **husband+donar** into the vagina, cervix or uterus by instruments to bring about pregnancy.

Procedure of Artificial Insemination

- The usual practice is to deposit 1ml of semen above the internal os by means of a sterile syringe, at or about the time of ovulation.
- The semen should be collected by masturbation, preferably after a week's abstinence & used within 2 hrs.
- The use of frozen semen for Artificial Insemination Donor (AID) is becoming common. This is done by addition of glycerol, slow cooling & rapid deep freezing.

Indication of Artificial Insemination

- **AIH-:** When husband is impotent but fertile.
- **AID-:**
 - I. When husband is Sterile.
 - II. Rh factor incompatibility
 - III. Husband is suffering from hereditary disease
- **AIHD-:** When husband is suffering to oligospermia.

Medico legal Aspect of Artificial Insemination

- **Danger of litigation against doctor-: If child is defective**
- **Legitimacy-: in case of AID, the husband is not actual father of that child & so can not inherit property.**

In-Vitro Fertilization (Test Tube Baby)

Thank You