INFERTILITY IN MALES

CAUSES

1 Decreased sperm count –oligozoospermia

Normal sperm count in a male is about 100 to 150 millions/mL of semen. Infertility occurs when the sperm count decreases below 20millions/mL of semen. Sperm count decreases because of disruption of seminiferous tubules or acute infection in testis. In some males there is possibility of sterility {permanent inability to produce offspring} because of absence of spermatogenesis as in the case of cryptorchidism or underdeveloped testis.

2 Abnormal sperms

Sometimes the sperm count may be normal, but the structure of the sperm may be abnormal. The sperms may be without tail and nonmotile or with two heads or with abnormal head. When a large number of abnormal sperms are produced infertility occurs.

3 Obstruction of reproduction ducts

Obstruction of reproductive ducts like vas deferens leads to infertility.

4 Other disorders

 -Tryptorchidism

-Trauma

-Mumps

-Long-term use of drugs

-Alcoholism

-Genetic disorders

-Hypothalamic disorders

-Disorders of pituitary, thyroid and pancreas.

 SPERMATOGENESIS

Spermatogenesis is the process of transformation of the spermatids which are still epithelioid, to sperm cells. The process of spermiogenesis takes place with the cells embedded in the sertoli cells; it requires estrogen and FSH. Once the sperm cells are formed, they are extruded into the lumen of the tubule in a process stimulated by luteinizing hormone. The first division of the type A spermatogonia to extrusion of the sperm cells requires a period of approximately 64days. The newly formed sperm cells are not functional and require a maturation process. Maturation requires both testosterone and estrogen. The mature sperm are stored in the vas deferens.