Hypogonadism

Hypogonadism manifests differently in males and in females before and after the onset of puberty. If onset is in prepubertal males and testosterone replacement is not instituted, the individual has features of eunuchoidism, which include sparse body hair, poor development of skeletal muscles, and delay in epiphyseal closure, resulting in long arms and legs. When hypogonadism occurs in postpubertal males, lack of energy and decreased sexual function are the usual concerns. In females with hypogonadism before puberty, failure to progress through puberty or primary amenorrhea is the most common presenting feature. When hypogonadism occurs in postpubertal females, secondary amenorrhea is the usual concern.

Primary hypogonadism results if the gonad does not produce the amount of sex steroid sufficient to suppress secretion of LH and FSH at normal levels. Hypogonadotropic hypogonadism may result from failure of the hypothalamic LHRH pulse generator or from inability of the pituitary to respond with secretion of LH and FSH.

In women with hypergonadotropic hypogonadism (ie, gonadal failure), the most common cause of hypogonadism is Turner syndrome. In men with hypergonadotropic hypogonadism, the most common cause is Klinefelter syndrome.

Hypergonadotropic hypogonadism is more common in males than in females because the incidence of Klinefelter syndrome.

Physical findings may include the following:

- Males
    - Hypospadias or completely fused testes.
- Puberty should be staged.
- Signs of Klinefelter syndrome
- Females
    - Abnormal genitalia
    - Features of androgenization or Turner syndrome

The following causes of hypogonadism are noted:

- CNS disorders
- Tumors
- Miscellaneous causes
- Genetic causes (see Genetics of hypogonadotropic hypogonadism)
- Idiopathic and genetic forms of multiple hormone deficiencies

The following studies may be indicated in hypogonadism:

- Males
    - Serum FSH, LH, prolactin, and testosterone levels and obtain thyroid function test results.
    - Seminal fluid analysis karyotyping, and testicular biopsy may be helpful.
- Females
    - Serum LH, FSH, prolactin, and estradiol levels and obtain thyroid function test results.
    - Karyotyping

Pelvic ultrasonography, Testicular tissue testing, Bone ageing, Occasionally, testicular biopsy findings are helpful, particularly if azoospermia or oligospermia is present.

Medical Care

In prepubertal patients with hypogonadism, treatment is directed at initiating pubertal development at the appropriate age. essful treatment for both males and females with either with Testosterone agents/ Estrogen agents/ Progesterone agents.

In all above cases patients or patients' guardians should consult an Endocrinologist immediately

Complications

Men and women with hypogonadism can lead a normal life with hormone replacement.