Seminar in Gynecology
Hypogonadotrophic hypogonadism

Prepared by: Marwa Zayd
*Hypogonadism is when the sex glands produce little or no hormones. In women, they are the ovaries.

*Hypogonadotropin hypogonadism is a form of hypogonadism that is due to a problem with the pituitary or hypothalamus glands. These glands are found in or near the brain.
Causes
Normally, the hypothalamus in the brain releases gonadotropin-releasing hormone (GnRH). This hormone stimulates the pituitary gland to release other hormones, including follicle-stimulating hormone (FSH) and luteinizing hormone (LH).

Normally, these hormones tell the female ovaries to release hormones that lead to normal sexual development in puberty.

- Before puberty, any change in this hormone release chain causes a lack of sex hormones and prevents normal sexual maturity.
- If the problem occurs after puberty, sexual development may be normal, but there may be symptoms of low sex hormones (such as symptoms of menopause).

Kallmann syndrome is an inherited form of hypogonadotrophic hypogonadism that can occur with a loss of smell.
Symptoms

- Inability to smell (in some cases)
- Lack of development at puberty (development may be incomplete or delayed)
- Lack of secondary sexual characteristics such as pubic hair
- Loss of menstrual periods.

- Short stature (in some cases)
Exams and Tests

Tests that may be done include:

- Blood tests to measure hormone levels
- LH response to GnRH
- MRI of the head (to look for a noncancerous growth in the pituitary gland)
Treatment

Treatment depends on the source of the problem, but may involve:

- Estrogen and progesterone pills
- GnRH injections
- Surgery to remove a pituitary tumor
Outlook (Prognosis)

With the right hormone treatment, the person can go through puberty and fertility may be restored.
Possible Complications

- Delayed puberty
- Infertility

- Low self-esteem due to late start of puberty (emotional support may be helpful)
Prevention

Prevention depends on the cause.

People who have a family history of inherited conditions that cause hypogonadism may benefit from genetic counseling. Preventing serious head injuries reduces the risk of hypogonadotrophic hypogonadism due to pituitary injury.