MLS 514 QUIZ

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1. THE HORMONES OF THE ANTERIOR PITUITARY-

The six anterior pituitary hormones are:

 growth hormone (GH), thyroid-stimulating hormone (TSH), adrenocorticotropic hormone (ACTH),

 follicle-stimulating hormone (FSH), luteinizing hormone (LH), and prolactin (PRL).

GROWTH HORMONE (GH)- GH is essential in early years to maintaining a healthy body composition and for growth in children. In adults, it aids healthy bone and muscle mass and affects fat distribution.

THYROID STIMULATING HORMONE (TSH)-  TSH stimulates the thyroid gland to produce hormones.

ADRENOCORTICOTROPIC HORMONE (ACTH)- ACTH stimulates the adrenal glands to produce hormones.

FOLLICLE-STIMULATING HORMONE- FSH works with LH to ensure normal functioning of the ovaries and testes.

LUTEINIZING HORMONE (LH)-  LH works with FSH to ensure normal functioning of the ovaries and testes.

PROLACTIN- Prolactin stimulates breast milk production.

B. THE PRINCIPLE BEHIND THE USE OF LETROZOLE, CLOMIPHENE AND MENOTROPIN/GONADOTROPHINS IN THE MANAGEMENT OF SOME AILMENTS –

Letrozole works by suppressing estrogen production, decreasing the negative feedback of estrogens in the hypothalamus, and subsequently increasing the circulating concentration of follicle stimulating hormone (FSH), and has been used to induce ovulation. Letrozole is considered ideal for ovulation induction, as it does not deplete estrogen receptors in central and peripheral target tissues, it may have no negative impact on endometrium and cervical mucus, and it typically results in mono-ovulation.Gonadotropin preparations, either urinary or recombinant FSH, have been used to stimulate ovulation in women who fail to ovulate or get pregnant with Clomiphene citrate.  Low-dose step-up gonadotropin therapy may still lead to overstimulated cycles with the development of many follicles, resulting in cycle cancellation, severe ovarian hyperstimulation syndrome (OHSS), or multiple pregnancies in patients with Polycystic ovarian Syndrome.

1. The condition is called amenorrhea (secondary amenorrhea), where the woman fails to menstruate for 3 to 6 months.

Possible laboratory findings could be pregnancy, hormonal imbalances.

Hormonal imbalance are usually triggered by [tumors](https://www.healthline.com/health/benign) on the [pituitary gland](https://www.healthline.com/human-body-maps/pituitary-gland) or the [thyroid gland](https://www.healthline.com/human-body-maps/thyroid-gland).

[Low estrogen levels](https://www.healthline.com/health/womens-health/low-estrogen-symptoms) or [high testosterone levels](https://www.healthline.com/health/what-is-testosterone) can also cause hormonal imbalance.

B. The condition of the woman if she is 60 years old is also amenorrhea ( secondary amenorrhea), where the woman fails to menstruate for 3 to 6 months. Possible laboratory findings include- menopause, hormonal imbalance.

1. INVESTIGATING THE CASE OF INFERTILITY IN A COUPLE-

First, is to check for the history of the couple.

Then, assessing of whether they are dehydrated or have anaemia.

Check for the hormonal assay of the couple, the progesterone and oestrogen test for the female and the testosterone level for the male.

The next thing is to carry out a blood film investigation and a microscopic cultural examination and sperm analysis for the male to check for infection.

B. I would support the couple in achieving conception by letting them know about other means of conceiving in case they are unable to have conception through the natural method. These other means include Invitro fertilization (IVF), intrauterine insemination (IUI), etc.

Also, in respect to the result ,drugs could be given to balance the hormonal levels in the body to encourage conception naturally or artificially.