PHARMACOTHERAPY OF ANOVULATION

About Pharmacotherapy of anovulation

Pharmacotherapy

1. **Ovulation stimulators**
   - Clomid (Clomiphene citrate)

   Clomifene is useful in those who are infertile due to anovulation or oligoovulation. Evidence is lacking for the use of clomifene in those who are infertile without a known reason. In such cases, studies have observed a clinical pregnancy rate 5.6% per cycle with clomifene treatment vs. 1.3%–4.2% per cycle without treatment. Clomifene has also been used with other assisted reproductive technology to increase success rates of these other modalities.

2. **Oral antidiabetic agents**
   - Metformin

   Metformin was recommended as treatment for anovulation in polycystic ovary syndrome.

3. **Selective estrogen receptor modulator (SERM)**
   - Tamoxifen

   Tamoxifen may be used an alternative to clomiphene citrate for ovulation induction in women with anovulatory infertility. A dose of 10–40 mg per day is administered in days 3–7 of a woman’s cycle.

4. **Gonadotropins**

   **Human chorionic gonadotropin (hCG)**

   A molecule which is structurally similar to luteinizing hormone (LH). LH is secreted by the pituitary just before ovulation occurs, whereas hCG is released during pregnancy. On its own, hCG is not very effective in inducing ovulation, but when combined with clomifene citrate, it is much more effective.

   **Human menopausal gonadotropin (hMG)**

   A very powerful treatment for infertility. It consists of a combination of LH (luteinizing hormone) and FSH (follicle-stimulating hormone). From menopause onwards, the body starts secreting LH and FSH in large quantities due to the slowing down of the ovarian function. This excess of hormones is not used by the body and is expelled in the urine. hMG is therefore collected from the urine of menopausal women. The urine then undergoes purification and a chemical treatment. The resulting hMG induces the stimulation of several ovarian follicles. This increases the risk of producing several oocytes during the same cycle, and thus the risk of multiple pregnancies.

   **Follicle-stimulating hormone (FSH or recombinant FSH)**

   Now used as a replacement for hMG (human menopausal gonadotropin). Although hMG is a combination of FSH and LH (luteinizing hormone), FSH is the only active component that has an effect on ovulation. However, until recently, it was not possible to produce pure FSH. FSH is now administered in a similar way as hMG, at a specific point during the cycle, and it requires medical monitoring. It is therefore important to fully understand a woman’s cycle, and to be able to accurately anticipate menstruation and ovulation dates. FSH is also sometimes useful for women who are suffering from PCOS (Polycystic ovary syndrome).
Find more about related issues

Diagnoses

**Anovulation**
Failure of the ovaries to release an oocyte over a period of time generally exceeding 3 months.
Learn more at: [www.fertilitypedia.org/therapy/diag/anovulation](http://www.fertilitypedia.org/therapy/diag/anovulation)

**Menstrual cycle disorders**
An abnormal condition in a woman’s menstrual cycle.
Learn more at: [www.fertilitypedia.org/therapy/diag/menstrual-cycle-disorders](http://www.fertilitypedia.org/therapy/diag/menstrual-cycle-disorders)

Sources

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