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CLOMIPHENE CITRATE (CLOMID)

Clomiphene Citrate was first used to induce ovulation in 1961 and is still used today as the first line of drug treatment for ovulation.

HOW DOES CLOMIPHENE STIMULATE OVULATION

Clomiphene acts on both the hypothalamus and the pituitary gland to competitively block oestrogen. The pituitary gland senses this as a reduction in oestrogen levels in the blood (and therefore reduction in ovarian activity). The effect is that the amount of Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH) is increased. This increase then stimulates ovarian follicular development. The tablets are stopped after five days and by then the follicle is secreting increased amounts of oestrogen. When the amount of oestrogen reaches the appropriate level a mid-cycle surge of LH results and ovulation occurs.

The chance of pregnancy is about 50% over 6 months (dependant on age, smoking status and body mass index) once you start ovulating. Most if not all the pregnancies will have occurred by one year so it is not recommended to continue for longer than that.

HOW TO TAKE CLOMIPHENE

Clomiphene Citrate is taken in 50 mg tablets. The usual course of treatment lasts five days, starting on the second day of the period. A blood test is usually done on the 21st day of the cycle just to confirm that ovulation is taking place. If ovulation has not occurred then the dosage is increased to 100 mg. Rarely it can be increased to 150mg if the body mass index is high but the results are less good

SIDE EFFECTS

Clomiphene has a few side effects and these occur infrequently. The most common are thickening of the cervical mucus, especially on high dosage, making it more difficult for the sperms to penetrate, and vaginal dryness.

50% of women who take Clomiphene experience hot flushes. Some women develop ovarian cysts. These cysts are not dangerous and disappear once treatment has stopped.

Other symptoms can include abdominal bloating, breast discomfort, nausea, skin rash, dizziness and depression.

Very rarely, the patient may experience blurring of vision and, if this occurs, treatment must be stopped immediately.

Clomiphene causes twin pregnancy in about 5% of cases. It very rarely causes triplet or higher order multiple pregnancies.

There is a theoretical small risk of ovarian cancer if you take clomiphene for more than one year. This is not the case if you have had children or pregnancies which protect against this risk. Almost all the pregnancies occur in the first 10 ovulatory cycles of treatment

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Clomiphene is an oral preparation that is simpler to administer than other treatments for ovulation induction. There are a number of methods of monitoring treatment with Clomiphene. The simplest is a Progesterone blood test, usually performed on Day 21 of the cycle. This will determine whether ovulation is taking place or not. It will not, however, differentiate between single ovulation and an exaggerated response from multiple follicles. This latter response might result in multiple pregnancies.

IF YOU WANT TO REDUCE THE RISK OF MULTIPLE PREGNANCY

In order to identify patients who produce multiple follicles, it is possible to perform an ultrasound scan. If an excess response exists, the individual would be advised not to try for a pregnancy in that treatment cycle and the dose of Clomiphene would be reduced, unless the patient was at the minimum dose.

We have developed a monitoring scheme that would allow those who wished to have a single ultrasound scan during their first Clomiphene cycle. This would be carried out between day 10 and 12 of the cycle.

The only way to reduce the risk is not to try for a pregnancy in the months that more than one follicle is produced. This approach will reduce therefore the efficiency of treatment and potentially lessen the chance of pregnancy over a 6 month period.

It is by no means essential that everyone should have monitoring but it is important that ovarian ultrasound monitoring is available. When considering whether to have ultrasound monitoring, patients should consider the following:-

1. An ultrasound scan will identify patients who over-respond to Clomiphene citrate, especially the higher doses.
2. There is no treatment in that cycle, other than to make a decision whether to take the risk in terms of multiple pregnancies, or avoid sexual intercourse for that cycle.
3. Ultrasound scans will also identify under-response, but a single progesterone blood test on day 21 will do the same.
4. It may be necessary in the case of poor responders to have more than one ultrasound scan and this may take up a protracted amount of time.
5. If you are prepared to take the risk of multiple pregnancy, currently 5% in an ovulation induction programme, you could start treatment with Clomiphene without worrying about an ultrasound scan.

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