

# Ovarian stimulation, insemination, and contraception



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We have come a long way in achieving, and preventing, pregnancy since 1966.

In 1958, Dr. Gemzell (1) reported the results of ovarian stimulation in 35 amenorrhoeic or oligomenorrhoeic women, from which 18 pregnancies were obtained. This was the first time urinary gonadotrophins were used in anovulatory women, and Dr. Gemzell concluded this medication should be used to treat sterility in women with ovulatory dysfunction. Although this may seem rather unremarkable to us today, as this is now commonplace treatment, at that time the use of gonadotropins for ovarian stimulation was actually contraindicated in these cases.

Just as it is today, improving donor insemination was another emerging area of research in the 1960s. Progress was made when Drs. Murphy and Torrano (2) employed the rat ovarian hyperemia test and knowledge of the last 5 menstrual cycles of the patient to select the day of insemination. By doing so they achieved a cumulative pregnancy rate of 68% in 112 women (with approximately 5 inseminations/patients). The women who conceived were typically inseminated on days 11 to 13 of the menstrual cycle. This study made no mention of the donors' origin or the safety measures performed, but it helped to pave the way for future progress in donor insemination.

While much effort was dedicated to achieving desired pregnancies, preventing pregnancy via contraception was another important topic of research. Drs. Brooks and Horne (3) reported the first experience using intrauterine device as a contraceptive method for married women, assuming that this population had more exposure to unintended pregnancy

than non-married women. Following 188 women over a 3-year period, they observed a total of 4 pregnancies. Three of these were related to women's errors, such as neglected self-examination and using inadequately sized devices, while only one was attributable to intrauterine device failure. This was a big step toward the acceptance of this device.

Similarly, the search was on for the ideal contraceptive pill and the minimum effective dose of estrogen and progestogens. Statzer et al. (4) published their promising experience with the use of 2 mg norethindrone and 0.1 mg mestranol in 229 women, where no pregnancy was recorded for approximately two years. Using the same preparation, Hutcherson et al. (5) also reported no pregnancies in 618 women followed for approximately 30 months. In 1960, the pill was approved for contraceptive use.

## REFERENCES

1. Gemzell C. Human pituitary gonadotropins in the treatment of sterility. *Fertil Steril* 1966;17:149–59.
2. Murphy DP, Torrano EF. Donor insemination. A study of 112 women. *Fertil Steril* 1966;17:273–7.
3. Brooks PG, Horne HW Jr. Intrauterine devices in women with proved fertility. *Fertil Steril* 1966;17:267–72.
4. Statzer DE, Cohn SL, Floyd WS. An evaluation of norethindrone 2 mg with mestranol 0.1 mg in control of conception. *Fertil Steril* 1966;17:250–60.
5. Hutcherson WP, Schwartz HA, Weathers W Jr. Long-term study of oral contraception with norethindrone 2 mg and mestranol 0.1 mg. *Fertil Steril* 1966;17:59–67.



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