

MULTIPLE PREGNANCY INDUCED BY OVARY HYPERSTIMULATION

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According to the data from the Danzig Institute of Obstetrics and Gynecology, among 69,100 deliveries in the years 1953-1972 there were 619 twins, 6 triplets, and 1 case of quintuplets. No multiple pregnancy was the result of hyperstimulation.

In the case of 100 women with primary sterility, treated also with clomiphene and gonadotropine, 67 pregnancies appeared and no case of multiple pregnancy was observed. No multiple pregnancy was observed in a sample of 50 women after discontinuing administration of hormonal contraceptives.

According to Hellin's rule, natural multiple-pregnancy rates are as follows: twins 1:80-90, triplets 1:80²-90², quadruplets 1:80³-90³, and quintuplets 1:50 million pregnancies. Weinberg and Bonnevie report that multiple pregnancies are due to hereditary traits of either the mother or the father.

Reports of the last decade show that multiple-pregnancy rates have considerably increased, which seems to be due to the introduction of new drugs in the treatment of anovulation, amenorrhea, and sterility, and which can eventually be hyperstimulations (Edgley 1969, Goldfarb et al. 1969, Menschliche Gonadotropine Periodica 1970, Feldmann et al. 1971). The following groups of drugs can cause hyperstimulation of ovaries (which can thus discharge more than one ovum from one or several Graafian follicles during one menstrual cycle):

1. Human gonadotropines;
2. Clomiphene, Sexovid, Org-817 (3-methoxy-17-epiestriol);
3. Hormonal contraceptive agents inducing hyperstimulative rebound phenomena after discontinuing administration.

According to Lunefeld, Rebau, Bettendorf, multiple pregnancies increase by 8-21% when H.M.G. and H.C.G. are administered.

Apart from hyperstimulation, certain side-effects may appear, e.g., Meigs syndrome (Bettendorf), ovarian cysts, nausea, vomiting, diarrhea, etc., as the result of administration of gonadotropine from 4500 to 50,000 I.U. (I.R. for H.M.G.) The individual dose of gonadotropine should be determined by the secretion rate of estrogens and pregnanediol.

When it is over 150 mg of estrogens in 24 hours, and over 10 mg of pregnanediol in 24 hours, it should be considered as hyperstimulation.

When clomiphene and similar drugs (Sexovid, Org-817) are used in the treatment of

ovary diseases and female sterility, the multiple-pregnancy rate increases significantly, up to ten times and over (Med. J. Aust. 1971, 2 : 345).

Edgley (1969) and Feldmann et al. (1971) report that multiple pregnancies may be the result of discontinuing or of errors in the administration of hormonal contraceptives. However, these reports are not statistically significant.

According to the data from the Danzig Institute of Obstetrics and Gynecology, among 69.100 deliveries in the years 1953-1972 there were 619 twins, 6 triplets, and 1 case of quintuplets. No multiple pregnancies were the result of hyperstimulation.

In the case of 100 women with primary sterility, treated also with clomiphene and gonadotropine (Polfa, Organon, Bayer), 67 pregnancies occurred with no case of multiple pregnancy.

Moreover, no multiple pregnancy occurred in a sample of 50 women after discontinuing administration of hormonal contraceptives.