Prevention of Abortion

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FAILURE of adequate dosage of stilbestrol to prevent abortion, even in the frequently habitual aborter, is often due to deficiency of vitamin B factors or of vitamin C. Javert[1] demonstrated premature separation of the placenta followed by abortion in cases in which there was a lack of vitamin B complex and of vitamin C. It was further shown by Jailer[2] that a deficiency of the folic acid moiety of vitamin B interferes with the normal physiologic action of estrogens, including stilbestrol. For the complete utilization of oral stilbestrol, therefore, adequate concentrations of these vitamins are essential.

Frequently the added metabolic burden imposed by pregnancy makes necessary the administration of vitamins supplementary to those of the diet. For this purpose a convenient combination of estrogen and vitamins is found in desplex* tablets containing micronized stilbestrol, vitamin C and all the essential factors of the vitamin B complex including B_{12} and folic acid, indispensable in the intermediary metabolism of stilbestrol.

Results from the application of desplex in 200 pregnancies indicate the advisability of extending its use to include not only those patients known to have had previous abortions but also all other pregnant women, whether or not there is manifest evidence of threatening abortion or of vitamin deficiency.

The series reported herein consists of ninety primiparas and 110 multiparas, ninety of whom had had from one to seven miscarriages. Of these 200 pregnancies only two aborted under desplex therapy: One patient with a history of three miscarriages aborted a macerated fetus with decidual degeneration, and in one patient with five previous spontaneous abortions abruptio placentae developed at six and a half months necessitating cesarean section.

Dosage was determined by a consideration of the number of previous miscarriages and the period in pregnancy at which they took place. The dose was increased at the calculated periods when menstruation would have occurred, and was greatly augmented and often supplemented by the intramuscular injection of bio-des† with the appearance of symptoms suggesting threatening miscarriage, i.e., backache, lower abdominal tenderness, cramps or staining. Primiparas and patients who had had no previous miscarriages were given 25 mg. of desplex daily from the second to the fourth month, 50 mg. daily from the fourth to the sixth month and 75 mg. a day from the sixth month to term. Patients with histories of miscarriages were given 25 to 50 mg. daily through the first trimester, 100 mg. a day through the second trimester and 100 to 150 mg. daily thereafter to term.

In patients showing definitive symptoms of threatening abortion the dosage of desplex was increased to 300, 400 mg. and in a few cases to 500 mg. a day. In addition to this therapy, ten of the patients with most severe symptoms of impending abortion were given 25 mg. or more of bio-des intramuscularly every six hours until the symptoms were controlled.

These massive doses of micronized stilbestrol supplemented by vitamins B and C were remarkably well tolerated. Karnaky[3] found that the administration of vitamins B and C along with stilbestrol aided greatly in reducing the untoward reactions, nausea and vomiting, thus obviating loss of the drug by emesis and ensuring maximal estrogenic effect by complete metabolic utilization. Nausea and vomiting, so often encountered in the use of ordinary stilbestrol without vitamins, were absent, as was the frequently reported adverse effect of long-continued high dosage administration of

* Supplied through the Grant Chemical Company, Inc., New York, N. Y. Composition: micronized stilbestrol 25 mg., thiamine hydrochloride 2 mg., riboflavin 2 mg., pyridoxine hydrochloride 1 mg., ascorbic acid 50 mg., calcium pantothenate 10 mg., niacinamide 50 mg., folic acid 0.25 mg., vitamin B_{12} 0.5 μg.

† Bio-des, Grant Chemical Company, Inc., micronized stilbestrol in sesame oil, 25 mg. per cc.

natural or synthetic estrogens on increase in fetal size and weight. To the contrary, estimation of uterine size and volume and fetal weight up to the twenty-eighth week of gestation gave lower figures than in patients without estrogen therapy. After that point growth of the infant increased rapidly to normal.

The therapeutic regimen reported herein gave such encouraging results as to justify its routine use in all pregnancies; primiparous and multiparous without previous miscarriages as well as the more usually treated group of habitual aborters. It is true that not all will require this antiabortive therapy. However, in view of the impossibility of selecting those patients in whom abortion is to be anticipated and in view of the extraordinarily favorable results of losing but two of 200 pregnancies, general use of this treatment, to include some patients who would go to term without it, is fully justified.

Incidental to this series of 200 pregnancies were several patients routinely placed on the stilbestrol-vitamin regimen because of a missed period and erroneously presumed pregnancy. The high estrogen dosage continued the suspension of menstruation and it was six to eight weeks before it was discovered that a nonexistent pregnancy was being treated. This embarrassing situation, of course, can be avoided by establishing pregnancy by the Aschheim-Zondek or Friedman test before initiating therapy.

SUMMARY

Ninety pregnant habitual aborters with one to seven miscarriages, twenty additional multiparas and ninety primiparas were given daily massive stilbestrol therapy together with vitamin B factors and vitamin C. There was a loss of but two pregnancies (1 per cent), justifying general routine application of this antiabortion regimen in all pregnancies.

REFERENCES

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