#### Effect on Lactation

Oral contraceptives in high doses (5 and 10 mg. of progestogen) tend to decrease or stop lactation in many women in the first or second cycle of use. These compounds appear in breast milk but in minimal amounts (0.004–0.1 percent of the administered dose). Despite the small quantities of the steroids appearing in breast milk, mammary enlargement may occur in nursing infants. Administration of the androgenic steroids to newborn experimental animals at crucial periods can affect sex differentiation and behavior and result in sterility. No data on human beings are available.

#### Masculinization

Oral contraceptives have not produced serious

masculinization in women taking these agents although all large series have reported some individuals with mild masculinizing symptoms. The 19-nor-compounds appear to have somewhat more masculinizing effect than other synthetic progestogens. These effects are mild, including acne and hirsutism. These changes regress with cessation of medication. The effect on the fetus is of greater importance. Synthetic progestogens, in doses used in the treatment of threatened or habitual abortion, may produce superficial masculinization of the genitals of the female fetus. These anatomic abnormalities are correctable, but the effect upon subsequent reproductive functions and psychosexual development is unknown.

# miscellaneous adverse experiences

## **Ophthalmologic Complications**

There have been reports of blurring of vision and even blindness in patients taking the oral contraceptives. The majority of these effects are thought to be of vascular origin, although some may be on a neurological basis. Most of the reports are of single cases or small series in which the etiologic relation is uncertain, but in some cases vision improved when the drugs were discontinued. In several large series of patients on oral contraceptives "eye complaints" and abnormalities have occurred but not with an increased incidence. The question of possible adverse effects on vision is by no means completely solved, but there appears to be no reason for undue concern

at this time. Long-range and carefully controlled studies should be undertaken.

## Migraine

There are instances reported of migraine occurring for the first time as well as some with exacerbation of preexisting migraine in patients taking oral contraceptives. Studies show that women who have preexisting encephalographic changes characteristic of migraine tend to have these abnormalities brought out but not initiated by the oral contraceptives.

### Psychological and Emotional Factors

Studies are in progress regarding the effects of oral contraceptives on human and animal behavior. At present no precise data are available.

## efficacy

The following uses for which therapeutic efficacy has been claimed were reviewed:

- A. Control of Fertility
- B. Amenorrhea
- C. Dysmenorrhea
- D. Endometriosis
- E. Functional Uterine Bleeding

- F. Habitual Abortion
- G. Miscellaneous Uses

## A. Fertility Control

The efficacy of the combined agents is exceptionally high. The more recently introduced sequential regimens are also highly effective in controlling fertility, although to a slightly lesser

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