

ble in efficacy to that of the cervical Papanicolaou smear, the problem of the possible carcinogenic effect of oral contraceptives on the breast remains unresolved. The Committee suggests that carefully designed retrospective studies using a case-control method similar to that employed in the investigation of thromboembolism may answer this perplexing question. A pilot study to ascertain feasibility is already in progress at the Johns Hopkins Hospital. If this method proves successful, several larger studies should be immediately initiated.

Lacking conclusive information about the applicability of existing animal data to women and sufficient observations of human disease the Committee concludes that potential carcinogenicity of the oral contraceptives can be neither affirmed nor excluded at this time. Clinical surveillance of all women taking oral contraceptives must be continued. A major effort to resolve the questions about steroid-induced neoplasia in human beings should be undertaken.

(g) *Metabolic effects*

Hormonal contraceptives produce numerous effects on many organs, for example, the liver, the thyroid, and the adrenal. They also affect some of the body's homeostatic mechanism; for example, they produce changes in salt and water metabolism and occasionally induce hypertension. Recently morphologic changes in blood vessels have been described. In many areas where alteration in function or structure has been noted, basic information is lacking. Little is known, for example, about the effects of the oral contraceptives on water metabolism or renal function.

Observations that large doses of estrogen hasten epiphyseal closure in girls has created fear that oral contraceptives may limit growth. Such concern is unjustified, however, because these drugs are usually prescribed only after the growth spurt and in doses far smaller than those required to stunt growth.

There is no evidence at this time that any of these drug-induced metabolic alterations pose serious hazards to health. The systemic effects of the drugs are so fundamental and widespread, however, that continued medical surveillance and investigation is required.

COMMITTEE RECOMMENDATIONS

1. Well designed studies be initiated and supported to elucidate or eliminate the relation of the hormonal contraceptives and carcinoma of the breast and uterus.

The relation of exogenous steroid hormones to the induction of cancer in man is the major unsolved question in the widespread use of the current hormonal contraceptives. Funds to investigate this relation are urgently needed. An international conference on epidemiologic design or projected studies should be beneficial.

2. Long term support be supplied to investigate the basis and prognosis of the metabolic alterations produced by the hormonal contraceptives.

The Task Force Report on Metabolic Effects of the hormonal contraceptives reveals a paucity of basic knowledge. Substantial research support is needed to close these information gaps.

3. Substantial support be supplied to develop new methods of contraception.

The current methods of contraception have inherent risks and disadvantages. These are enhanced when modern contraceptive methods are introduced into underdeveloped countries. Generous research support to discover new methods with decreased risks and fewer disadvantages is essential.

4. The National Institutes of Health support a National Fertility Survey in 1970.

Adequate data on contraceptive usage are not available after 1965. Support for a quinquennial survey should be established.

5. Financial support be made available to make possible local reporting of certain diseases.

Reporting of certain diseases such as cancer from selected localities would be of obvious benefit. The annual incidence of cancer reported from Connecticut is currently available only as late as 1962 while the report from New York, exclusive of New York City, is more up to date. These reports, if current, and if extended to include adequate samples of the general population,