

However, the major importance of the finding is that it focuses attention on the period after oral contraceptives have been discontinued. An enormous amount of data exists regarding the effects of oral contraceptives on women whereas possible late sequelae are almost unexplored.

There have been relatively few reports of pregnancies of women who conceived within a few months of discontinuing oral contraceptives and the numbers in each study are small (3-7). It is true that, superficially, these reports are reassuring but they are inadequate because of their size. There are major problems in setting up surveys to exclude after-effects of drugs, such as oral contraceptives (8). Although it is unnecessary to use very large numbers to reveal an overall increase in congenital defects, the latter are a mixture of many different types. By the time they are broken down into their composite types, it would be easy to miss a significant increase in an unusual anomaly unless large numbers of patients were studied.

The use of mammals, other than man, for long term studies of agents such as oral contraceptives, is of doubtful value. We must, therefore, make the greatest possible use of data available for human pregnancies. We lack, or do not effectively use, large scale retrieval data for the outcome of pregnancy. This may, at any time, be influenced, for good or ill, by some new factor in our environment. In addition to the study of data in relation to full term pregnancies, a registry of spontaneous abortions would be invaluable for our understanding of mechanisms underlying congenital defects. The vast majority of defective offspring are spontaneously aborted and this valuable material is literally going down the drain. Good pregnancy records and co-operation between virologists, ecologists and pharmacologists could contribute valuable information when correlated with data on spontaneous abortions and full-term pregnancies.

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TABLE 1

Chromosomes of embryo	Control study	Postoral contraceptive study
Normal (46).....	177	28
1 extra chromosome (47).....	27	7
1 chromosome missing (45).....	12	3
All cells with 69 (triploid).....	9	10
All cells with 92 (tetraploid).....	2	3
Some cells abnormal (69 or 138).....	0	3
Total.....	227	54

Senator NELSON. Our next witness is Dr. James Whitelaw. Dr. Whitelaw, the committee is very pleased to have you here today. If you would give a brief identification of your background and credentials for the committee, we would appreciate it.

STATEMENT OF DR. M. JAMES WHITELAW, PRIVATE PHYSICIAN, SAN JOSE, CALIF.

Dr. WHITELAW. I have been in private practice since 1935, and I have been connected with five medical schools in the United States, and one in Europe doing research work in the field of—