

Senator NELSON. May I interrupt for a moment?

Dr. CLARK. Yes.

Senator NELSON. On page two, when you referred to the fact that the "woman on the pill would have 10 times as many chances of developing a pregnancy-associated complication as would the woman naturally pregnant," would I be correct in saying that on the other hand, the woman, who is naturally pregnant during the course of the development of the fetus over this 9-month period, is also exposed to some of the risks that the woman on the pill is not exposed to?

Dr. CLARK. Yes, indeed, sir. This point is introduced only to indicate, Senator Nelson, that one has reason to suspect that such complications could have occurred. These things did not really appear entirely *de novo*. Experienced clinicians were aware of neurological and vascular complications of pregnancy, and we had to take into account that by the use of the pill, we were simulating certain parts, at least, of a natural pregnancy, that there would be certain inherent risks. The exact extent of similarity between the two conditions simply cannot be stated at the present time.

All of the neurological complications of pregnancy, the serious ones at least, with which we are concerned are rare. Only the consultant, which in the case of the nervous system, is usually the neurologist, ophthalmologist, or neurosurgeon, is apt to see any number of them, and even he does not see very many. It has been thought for a great many years that spontaneous cerebral vascular accidents are quite rare in healthy, nonpregnant women, especially younger ones; it is not surprising that the question of a relationship between the taking of oral contraceptives and strokes should have been suggested at first largely by neurologists, who would naturally tend to see a greater concentration of these problems than the general physician or obstetrician.

The first suggestive case report appeared in 1962, published by Lorentz. In the ensuing 8 years, rather better than 100 cases have been reported in the world medical literature in varying detail. One gets the impression that there are probably a great many more cases, but this is only an impression.

I should point out here that it is most unfortunate that we have no adequate and reliable reporting system to detect the existence of such cases. Over the ensuing years, an often very bitter controversy has developed over the relation between the strokes and the taking of the pill.

The reasons for this difference of opinion are quite simple. In the first place, the earlier cases were observed as sporadic events. Their numbers were very small. The physicians, who were usually neurologists or ophthalmologists, who became interested in them, had no way of knowing how many women were taking such drugs.

There was, as I have indicated, and there still is, no reliable and continuing system of reporting. There was, therefore, no way to know the total number of cases or to relate this number reliably to the number of patients who were at risk.

Further, it was rapidly found, which was embarrassing, I think, to all of us, that we did not have a really accurate idea of the incidence of spontaneous cerebral vascular accidents, spontaneous strokes; in young,