

had prescribed an entirely different sedative. On investigation at the pharmacy where the mother had bought the medicine, Dr. Lenz found the prescription was stamped "drug not in stock, Contergan given instead."

In another instance in which Dr. Lenz talked with the parents for more than one-half hour and both denied the mother had taken Contergan, 3 weeks later Dr. Lenz received a letter (I read the letter) saying: "I have been told not to write but I can no longer sleep without telling you I did take Contergan but, as my husband was once in a hospital for drug addiction, I had promised I would never take such a drug; I could not tell him I had broken my promise."

By the middle of March, 1962, Dr. Lenz had analyzed 50 cases (13) in which he interviewed parents, reviewed hospital records, and determined the date of the last menstrual period and in many instances he obtained the date of conception and also had proof of the date on which Contergan had been taken. Forty-five of 50 women had taken the drug between the 30th and 50th day and 5 had taken it between the 50th and 60th day after the last menstrual period. Among the 21 instances in which the date of conception was known, the mothers had taken contergan between the 28th and 42nd day (inclusive) after conception. Although the exact time during which the drug has a teratogenic action may be found to vary slightly, the period in which it affects the development of the embryo appears to be relatively brief.

These observations clarify the finding of Dr. W. Hillmich (14) of Göttingen who made a prospective study of 99 patients who had taken Contergan during pregnancy. He found none had taken the drug in the first 3 weeks; one had taken it in the fourth week, none in the fifth, one in the sixth, none in the seventh, and one in the eighth week. All of the remaining patients had taken the drug after the ninth week of pregnancy. The mother who had Contergan on the 42nd day after the last menstrual period was the only one who had an abnormal baby. The woman who had taken Contergan in the 6th week had taken it on the 51st day after her last menstrual period which is probably safe provided she had a normal ovulation time. All others had taken the drug well after the sensitive period.

The incidence of phocomelia in West Germany is terrific. Studies from the Institute of Human Genetics in Münster showed that between 1949 and 1959 they saw an average of 4 children per year with severe malformation of the extremities. These malformations included peromelia (amputation of a limb), amelia (absence of a limb which may be the extreme either of peromelia or of phocomelia), micromelia (a small limb), and phocomelia. Even the phocomelia of former years differed from the present phocomelia in that it was usually unilateral. Suddenly, in 1959, 3 cases of bilateral phocomelia were seen in that institute; 26 cases occurred in 1960 and 96 cases in 1961. Furthermore, to date 13 pairs of twins have been registered; hence they estimated there should be 1,300 cases.

The Minister of Health of Westphalia has set up a name registry for all children with defective hands and arms, i.e., all children who would need orthopedic help. This registry included clubbed hands and polydactylism as well as phocomelia. They estimate that about 80% of these cases will be phocomelia. As of Jan. 1, 1962, they had 800 registered cases and at that time reports had been received from only one-half of Westphalia. I saw the pile of records for January and February, 1962. These had not yet been counted but there must have been approximately 200. This indicates that there will be probably 1,500 to 2,000 such children in Westphalia and the North Rhineland by August, 1962. This estimate agrees with the estimate from Münster. Westphalia is but one section of West Germany. Thus the estimation of 3,500 to 4,000 cases appears to be a minimal figure. Probably the number will be far larger. Two-thirds of the children are expected to live.

We visited Freiburg because it was reported that there were 100 cases there. At the University Clinic, Dr. Keller advised me that they had seen approximately 10 or 20 cases and showed me one infant in the hospital. He kindly offered to look up the exact number. Subsequently, he wrote me that they had seen 37 infants in the clinic and they had received reports of 200 such infants born in the environs of Freiburg.

In contrast to these findings, Dr. Immon at the Headquarters of the United States Army of Occupation in Heidelberg told me on March 6 that he was reasonably confident that there had been no cases of phocomelia among the 16,000 babies born in the U.S. military hospitals in Germany in 1961. He had