Penicillin and streptomycin were given as a prophylactic. Apart from a rise of temperature to 100.2° F. (37.9° C.) on the second day, the temperature remained normal throughout the patient's convalescence.

DESCRIPTION OF FOETUS

The foetus, as can be seen in Figs. 1 and 2, was a dicephalic monster. The two heads and necks were of normal size, but the contiguous surfaces of the heads were slightly flattened from pressure. The trunk, arms, and legs were normal. The thoracic and abdominal cavities were dissected. The special features are shown in Figs. 3 and 4.

FIG. 3.—Diagram of viscera in thoracic and abdominal cavities.

FIG. 4.—Diagram of twin oesophagus and stomach.

The left side of the chest was occupied by the left stomach, part of the left lobe of the liver, and some of the small intestine. A separate oesophagus and stomach were associated with each head, but the duodenum fused just beyond the pylorus and thereafter there was a single intestinal tract.

As the specimen was required for preservation the spine was not dissected, but radiographs showed the fusing of the two spinal columns in the mid-dorsal region.

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Schizophrenia in Uniovular Twins: Recovery

The study of uniovular twins is of great value in establishing a genetic element in schizophrenia. Two fallacies must be excluded. Firstly, one must remember that twins occupy the same place in the family hierarchy and are apt to have very similar conditioning factors in upbringing and education; secondly, one must exclude the possibility of *folie à deux*, of infection between two persons who live in close association. Both these were fully excluded in the unique case recorded by Craike and Eliot Slater (1945), in which the twins were separated at the early age of 9 months and were brought up in completely different environments. Nevertheless, they both developed paranoid schizophrenic disorders with similar symptomatologies.

The pair recorded below were not completely separated until the age of 17, when each went to study in distantly

separated universities. But even before that time there had been a number of differences in environmental stresses; yet they both developed schizophrenic illnesses with similar symptomatologies within a year of each other. Both made good recoveries with insulin shock treatment and resumed their studies.

CASE REPORT

Twin B, born one hour later than *twin A*, suffered a severe scalding of her legs with shock at the age of 2½. Up to about the age of 10 (I.Q. then recorded as 137) the twins did not show significant differences, but differentiation became marked after *B* developed an eye ulcer which kept her away from school for a while, and she had to be moved to a lower form. *Twin A* began to forge ahead. *Twin B* became frustrated in the competition with *A*; however hard she tried, *A* always came first. Finding she could not beat her sister in arts, she took up science, entering a university in October, 1950. She had an attack of shingles in December, 1952, but some weeks earlier had become excessively religious. The acute breakdown occurred in March, 1953, at the age of 20. She began to pray for the conversion of her parents, was alternately elated and depressed. On admission to hospital she exhibited an ambivalence of mood and thought: at times she would describe herself as the Virgin Mary or Queen of the Realm, talked of opening up the Kingdom of Heaven, wanted to get married to the Lord Jesus; at other times she called herself Judas Iscariot, thought she had sold herself to the devil and ought to be crucified. After undergoing a course of E.S.T. (9 shocks) and I.S.T. (30 comas) she made an excellent recovery. In October, 1953, she resumed her studies, and took her B.Sc. in August, 1954.

Twin A developed the first signs of schizophrenia about a year later. In December, 1953, she became intensely self-critical, accused herself of laziness and apathy, maintained that she had led a deplorable life, described herself as despicable and a menace to everybody. On admission to hospital about a month later she claimed that she had seen God in the form of a light, was told that she would give birth to a child who would be called "Love," and thought that she had a special mission on earth. A Wechsler-Bellevue II gave her an I.Q. of 137. The Rorschach, M.M.P.I., and Szondi tests all pointed to a schizophrenic illness. After a course of I.S.T. (50 comas) she made a good recovery. Early in 1955 she obtained an honours degree.

COMMENT

Folie à deux can be excluded because the twins studied at far-removed universities for over three years. Moreover, in the earlier years, *twin A* was the more dominant and stronger character, but it was *twin B* who first developed schizophrenia; also, *twin A* informed me that she had no sympathy with *B*'s religious ideas. Though as children they were often confused because of similarities, as time passed differences of environmental strains and stresses determined differences in their personalities, and they soon grew away from each other. Nevertheless, a strong genetic factor doomed each of them to schizophrenic breakdowns with similar psychic patterns and subsequent recoveries.

Of the 41 uniovular twins reported by Eliot Slater (1953), in which one member was schizophrenic, there was concordance in 28 instances, and in only 9 of these did the ages of onset differ by one year. This indicates that environmental factors are also of importance in the development of schizophrenia. In the pair reported here environmental differences were not strikingly marked, and this no doubt helps to account for the similarity of onset and clinical picture.

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