

motion, a lashing, spiral and to-and-fro. With Giemsa's fluid it stains a pink color, while the *Spirochæta refringens* stains a dark purple with the same fluid.

II. MODE OF TRANSMISSION.

It is now established that a syphilitic father cannot impart his disease directly to his offspring. It is not possible for the spirochæta to be present in the spermatozoon, grow and multiply in it and not destroy it. Further, Colles's law has borne the test of time that a syphilitic child cannot infect its mother whom it nurses. It would appear as quite clear that inheritance is invariably through the syphilized mother.

If the disease is active in the mother the infection may penetrate into the placenta and infect the foetus, often causing death. In other instances where the disease is not very active either through time or treatment, the spirochæta may not thus reach the placenta and foetus. At the time of labor, however, as the placenta begins to separate, its surface may become infected, and the infection find its way to the foetus through the umbilical vein. In such cases the exanthematous stage may occur a few weeks to two or three months after the birth of the child. The separation of the placenta corresponds with the chancre in ordinary cases.

It was once held that in Colles's law the mother had acquired the disease from her child *in utero*, but it has been shown that this is not possible. The only remaining conclusion is that the mother is first affected and then gives the disease to her child through the placenta during gestation, or at the time of birth, by the separation of the placenta.

Whether the disease can be transmitted to the third generation or not is still a disputed question. Mr. Hutchinson collected eight instances of persons who had inherited syphilis, but whose children did not show any evidence of the disease. The late Dr. R. W. Taylor recorded three instances of what he regarded as descent to the third generation, and Edmond Fournier has collected 59 instances of what he regards as transmission to the third generation.

It is well known that a person as old as 25 years may show active secondary symptoms from inherited syphilis. This fact would render the transmission to the third generation a possibility on purely scientific grounds. But more evidence is required before a definite conclusion can be arrived at.

III. GENERAL RESULTS.

The mortality among syphilitic children is very high, and the morbidity still higher. It must be remembered that the sores about the child's mouth and anus are highly infecting, as the discharges from these contain