

From an observation by Chauveau, it may be inferred that septic organisms, when injected directly into the blood, are able to survive for two or three days, although unable to breed there. It is conceivable that occasionally a septic germ, entering the body by some of the ways which have been suggested, may escape destruction and pass into the blood, and lurk there awhile, and finding by chance some dead tissue or liquid within its reach, may multiply therein and produce septic effects. Such a contingency, if it ever occur, must be very rare, and would not appreciably detract from the value of the antiseptic mode of dressing wounds.

*Relapsing Fever.*—In 1872, Dr. Obermeier, of Berlin, discovered minute spiral organisms (spirilla) in the blood of patients suffering from relapsing fever. This discovery has been fully confirmed by subsequent observations. The organisms are found during the paroxysms; they disappear at the crisis; and are absent during the apyrexial periods.

These little parasites consist of spiral fibrils of the most extreme tenuity, varying in length from two to six times the breadth of a blood corpuscle. In the fresh state they move about actively in the blood. They have not been detected in any of the fluids or secretions of the body except the blood, nor in any other disease than relapsing fever. In form and botanical characters they are almost identical with *Spirochaete plicatilis*, of Ethrenberg (*Spirillum* of Dujardin), a species of bacteria found in dirty water, and occasionally in the mucus of the mouth. Cohn designated the variety found in the blood *S. Obermeieri*, in honour of its discoverer.

In the beginning of the current year, Dr. Heydenreich, of St Petersburg, published an elaborate monograph on this subject, which, I think, goes to reconcile the conflicting statements, and opinions put forth by previous writers in regard to the connection of the spirilla with relapsing fever. It is based on forty-six cases; those cases were studied with the most minute care; the blood was examined, and the temperature observed from two to six times each day. Altogether, over a thousand examinations of the blood were made.

Relapsing fever still prevails extensively in certain districts of Germany and Russia, but it is almost a forgotten disease in this country; and probably the majority of those in this room have never seen a case. It will, therefore, not be amiss if I remind my hearers, and myself, of its principal features. It is a contagious epidemic fever, characterized by a sharp paroxysm of pyrexia, which lasts about a week, and ends with severe critical sweating. This is succeeded by an intermission, also of about a week, during which the patient is apyrexial; then follows a second paroxysm, or relapse, which lasts four or five days, and ends, as before, in a critical sweating. Recovery usually follows the second paroxysm, but not unfrequently a third paroxysm occurs, and sometimes a fourth.

The paroxysms are occasionally broken by remissions or pseudo-crisis; and the apyrexial periods are sometimes interrupted by slight temporary rises of temperature.