

Ever since the discovery of the microbe of tetanus by Nicolaier in 1884, experimental work has been done in the laboratories to ascertain the mode of attack which it pursues in the animal economy; and it appears that this microbe does not spread in the body, but elaborates, in the injured part, toxins, which it diffuses through the general circulation.

This explanation being accepted, we see the necessity of the primary cleansing of a soiled wound, and the still greater necessity of keeping it dry, in order to prevent the decomposition of the wound secretions, which render possible the extensive formation and subsequent absorption of toxins. This may also be the reason why amputation of the wounded part proves curative of tetanus by removing the seat of toxin formation; and it may also account for the curative results obtained in tetanus by hypodermic injections of phenol at the seat of injury.

At the regular meeting of the Society of Surgery of Paris, November 16th 1898 (*La Presse Medicale*), Dr. Hue, of Rouen, reported the case of a boy, aged eleven years, who developed tetanus six days after receiving a compound fracture of the wrist from a fall. An intra-cerebral injection of the anti-tetanic serum was given, but the patient died in twenty-four hours. Dr. Quenu reported two cases of intra-cerebral injection of anti-tetanic serum followed by death. Dr. Lucas-Championnière reported two cases of this treatment followed by death. In a third case an intra-cerebral injection had been given to a patient affected with incomplete tetanus for eight days; the patient recovered, but it was a case of chronic tetanus. Recently, he had been informed by a surgeon who often sees cases of tetanus in his practice, that of seven cases occurring in one year, four recovered spontaneously. Consequently, in appreciating the facts, it should not be forgotten that tetanus, especially in the chronic form, terminates in recovery, in spite of and influenced by treatment. Dr. Chaput reported a case of intra-cerebral injection, followed by death. Dr. Richelot reported a similar failure. Dr. Hartmann also reported a failure.

November 23rd, Dr. Reclus read to the same Surgical Society two observations sent on by Dr. Bousquet. In one, in spite of intra-cerebral injection of anti-tetanic serum and the amputation of a finger—the cause of infection—the patient died during the day. In the other case, treated by chloral and subcutaneous injections of serum, the patient recovered. Dr. Beurnier reported that in a case of tetanus he had punctured the spinal canal in the lumbar region, removing 40 grammes of cerebro-spinal fluid and injecting by the same route anti-tetanic serum, afterwards injecting 8 grammes of serum into the frontal lobes of the brain. The patient died, and the autopsy revealed no important facts.

November 30th, Dr. Michaux reported to the same Surgical Society a case occurring in the practice of Dr. Veslin, in which tetanus was treated by intra-cerebral injections of anti-tetanic serum, and unsuccessfully.