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Unusual Case of Botulism

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Patient R., 36 years old, was admitted to a hospital on June 9, 1957, complaining of extreme weakness, vertigo, nausea, vomiting, xerostomia, dysopia and dimness of vision.

The patient disclosed in his statement that on the 6th and 7th of June he ate a fish (Phoxinus) of cyprinoid family that was caught on June 3rd and it was marinated on June 4th without any prior heat treatment. On June 8th he suffered from vertigo, vomiting and abdominal pain; in the evening of the same day he experienced double vision. Then, he was taken to a medical station, where he was subjected to a gastric lavage and was administered glucose intravenously. Since his condition did not improve, he was hospitalized on June 9th.

The condition of the patient on the day of his admittance to the hospital was grave. His pulse rate of 100 per minute was rhythmic and of satisfactory fullness. The temperature was 36.4°C. Heart: not enlarged; his heart sounds were clear, but deadened. Arterial pressure: 130/70. The abdomen was soft, yet slightly swollen. Liver and spleen were not enlarged. The pupils were widened and faintly reacting to light. A difficulty to swallow
lique was prominent. The sensory and reflex spheres showed no pathology.

The patient's disease was diagnosed as botulism. Several hours later he received intramuscular injection of antitoxin serum type A and B in 50,000 units each. At the same time he was prescribed: 50 ml of 40% glucose intravenously, a physiological solution and a 5% glucose up to 3 l for 24 hours by hypodermic drop-method, also a hypertonic solution of sodium chloride subcutaneously, penicillin 300,000 for 24 hours, vitamins C and B₁₂, as well as cardiovascular drugs.

The patient's condition on June 10th continued to be poor: we observed a persistent vomiting, impairment of vision, dysphagia, drooping of eyelids and oliguria. The patient received his second injection of the type A and B serum in 50,000 units each. On June 11th the patient's condition improved slightly after vomiting became less frequent. However, the extreme weakness remained and it was accompanied by xerostomia, vertigo and diminuendo of vision.

Objectively: fundus oculi - normal; blood test: 9.6 Hb 87%, 18,100; R.O.N.E (erythrocyte sedimentation reaction) 7 mm per hour; formula: bas, 12, segm. 63, lymph 21 and mon 4. In urine: slight albuminuria.

Electrocardiography on June 10: ER - 0.60, PQ - 0.22, QRS - 0.06 and QT - 0.31. The wave of P was recorded positively and that of Q remained unchanged. R₁ + P₂ + P₃ = 20 mm. R₃ - small and separated. Standard runoffs failed to record the S wave. The interval of ST was on the isocline. The T₁ and T₂ waves were expressed faintly.
The electrocardiography indicated injury of the heart muscle.

The treatment continued as before with injections of serum of the A and B type in 50,000 BU each. No serum was administered on June 12th.

The patient's condition deteriorated on June 13th as vomiting reappeared. The pupils were widened and failed to react to light. Extreme muscular weakness was present, as before. The patient was administered antitoxin serum in the same dose for three days, i.e. on June 13th through June 15th. He also continued to receive a general analeptic treatment and thus he began to feel better gradually. The weakness and impairment of vision remained longer than all other symptoms. Finally, also these symptoms disappeared and, after two weeks, the patient was discharged from the hospital in a satisfactory condition with a clean bill of health.

The special feature of the described botulinal case is that the recovery of the patient from grave condition could only be accomplished by way of multiple administrations of serum in the course of six days, while, according to the existent instructions only one or two days treatment with serum are recommended. The cause of the poisoning was a consumption of raw fish.