

Botulism, a disease of the past, re-emerging from preserves in oil

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Introduction: Botulism is a rare neuroparalytic disease mediated by botulinum toxin; although a rare entity, it still represents a problem for the impact for clinical practice and on public health.

Case report: Two 67 and 70 years old sisters were admitted in our hospital with blurred vision and asthenia. The patients reported consumption in two times (24 and 60 hours before the symptoms onset) of about 50 grams of home-canned peppers each.

The patients presented with diplopia, accommodation disorders with blurred vision and eye dryness, preceded by nausea and diarrhoea following the second peppers ingestion.

At the onset of the visual disturbances, one of the sisters went first to an ophthalmologist and then to her general practitioner, who suspected botulism after being informed of the other sister's similar symptoms.

During her hospitalization, other clinical manifestations occurred, such as bilateral eye ptosis, dysphonia, constipation for the youngest and mild dyspnea for the oldest.

The diagnostic phase is divided into the sending of organic samples (blood, rectal swab and intestinal washings) and food residues to lab for the detection of botulinum toxin, and in the execution of single fibre electromyography examination, which reinforces the diagnostic suspicion; therefore, the patients received the administration of antibotulinic serum, in coordination with Poison Control Center.

The subsequent course is characterized by a progressive improvement of symptoms; botulinum toxin (serotype A) is isolated from food samples and organic material from patients. The patients are discharged on the tenth day, with a clinical follow-up program.

Discussion: In the case described, the diagnostic hypothesis of

botulism seemed very probable already on arrival at the hospital, given the recurrence of typical symptoms in two persons of the same household. In general, the greatest difficulty in establishing a suspicion of botulism is found in single cases, in which botulism intoxication can be differentially diagnosed with other pathologies, such as stroke, myasthenia gravis, Guillain-Barre syndrome (especially in the rare variant affecting the encephalic nerves, known as Miller-Fischer syndrome), psychiatric disorders, other intoxications, etc.

For this reason, it is very important to carry out an in-depth anamnestic examination (systematically searching for information about the intake of the suspected food and possible other cases in the family) and to perform specific neuro-physiopathological tests.

It should also be considered that Italy is the European country with the highest number of annual cases (501 case between 1986 and June 2019), which is probably linked to the persistence in our country of the habit of consuming home-produced preserves in oil.

Conclusion: The constant recurrence in our country of a small, but significant, number of case of botulism leads on the one hand to develop prevention actions in the field of public hygiene, especially with regard to food preparation, and on the other hand to maintain a high threshold of attention with regard to the early recognition of this disease.

Finally, the increasing use of botulinum toxin for medical purposes and the hypothesized danger of the use of botulinum toxin for terrorist purposes or in biological warfare scenarios are two further aspects that reinforce the need to know the epidemiological, pathophysiological, prophylactic and clinical aspects of botulism in the present day.