

Sign and Symptoms of Botulism

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About the Study

Botulism is a rare and possibly deadly disease caused by a toxin produced by the *Clostridium botulinum* bacteria. The term botulus comes from the Latin word botulus, which means sausage. The symptoms of the condition include weakness; blur eyesight, sleepiness, and difficulty in speaking. The arms, chest muscles, and legs may become weak as a result of this. Vomiting, abdominal swelling, and diarrhoea are all possible side effects. The sickness normally has little effect on awareness and does not induce a temperature.

Sign and Symptom's

Botulism muscle weakness often begins in the muscles supplied by the cranial nerves, a group of twelve nerves that regulate eye movements, face muscles, and chewing and swallowing muscles. As a result, double vision, drooping of both eyelids, loss of facial expression, and swallowing difficulties are possible. It can impact both the voluntary and autonomic neural systems, in addition to the voluntary muscles.

Dry mouth and throat (due to reduced saliva production), postural hypotension (low blood pressure when standing, resulting in lightheadedness and the risk of blackouts), and finally constipation are all symptoms of this condition (due to decreased forward movement of intestinal contents). Nausea, vomiting, and difficulties speaking are also caused by several of the toxins. The weakness then extends to the arms and legs (beginning in the shoulders and progressing to the forearms) (again from the thighs down to the feet).

Severe botulism causes a reduction in the action of the respiratory muscles, resulting in issues with gas exchange. Due to the accumulation of exhaled carbon dioxide and its resulting depressive impact on the brain, this can cause dyspnea (difficulty breathing), which can progress to respiratory failure if severe. If left untreated, this can lead to respiratory failure and death.

Botulism symptoms are often thought of as a traditional triad: bulbar palsy and descending paralysis, lack of fever, and clear senses and mental condition ("clear sensorium").

Infant botulism

The most prevalent kind of botulism in the United States is infant botulism (also known as floppy baby syndrome). It was originally identified in 1976. The consumption of *C. botulinum* spores and subsequent colonization of the small intestine causes infant botulism. When the intestinal microflora (natural flora) is inadequate to completely prevent the development of *C. botulinum* and bile acids (which ordinarily inhibit clostridial growth) are lower than later in life, the newborn gut may be colonized.

By preventing the release of acetylcholine at the neuromuscular junction, the spores release botulinum toxin, which is subsequently absorbed into the circulation and carried throughout the body, producing paralysis. Constipation, lethargy, weakness, trouble feeding, and a changed cry are common signs of newborn botulism, which can proceed to a full descending flaccid paralysis. Constipation is the most prevalent symptom of newborn botulism, however it is often neglected.

Honey has been associated to newborn botulism and is a recognized dietary reservoir of *C. botulinum* spores. As a result, honey is not suggested for infants under the age of one year. The majority of instances of newborn botulism, on the other hand, are assumed to be caused by spores picked up in the natural environment. *Clostridium botulinum* is a bacterium that lives in the soil. Many newborn botulism cases have been found to reside in close proximity to a building site or a soil disturbance area.

Complications

Infant botulism has no long-term consequences, but it can be worsened by infections contracted in the hospital.

Botulism can cause respiratory failure, which can lead to death. However, due to improved supportive treatment, the proportion of patients with botulism die from around 50% to 7% in the last 50 years.