



Bulletin No. 20

September 23, 1988

FATAL BOTULISM FROM WHALE FLIPPER

Two Kipnuk residents who were commercial fishing in Egegik shared a meal of whale flipper with one other individual and dried herring with two other individuals on June 17 at noon. Twenty-four hours later, the index case, a 64-year-old male, complained of blurry vision, nausea, vomiting, weak limbs, and difficulty breathing. He was evaluated at a local health clinic and treated for gastrointestinal illness. On June 19, he became weaker and semiconscious and had persistent vomiting. By this time, his companion also was ill with weakness, dry mouth, difficulty swallowing, urinary hesitation, and blurry vision. Both individuals were evaluated at a local Naknek clinic and were then medivaced to Kakanak Hospital, Dillingham.

The index case suffered respiratory arrest ten minutes after arriving at the hospital. He was ventilated, given two vials of botulinum antitoxin, and medivaced to Anchorage. Unfortunately, he died in Anchorage the next day. His companion, a 52-year-old male, recovered at Dillingham. The third individual who ate flipper at the suspect meal reported onset, 24 hours after eating, of diarrhea that lasted one day. He received botulinum antitoxin at Kakanak Hospital.

The whale flipper was cut from a dead whale found beached near Kipnuk in late May. Pieces of flipper were placed in a one-gallon, lidded, plastic container which sat on a boat deck for five days until it was opened and eaten on June 17. A second identical container was opened on Saturday, June 18.

After the suspect meal, five other fishermen ate whale flipper from one of two containers on the boat at Egegik. One of these individuals reported diarrhea and weakness after eating whale flipper. Thirty-one individuals from 10 Kipnuk families had also eaten the whale meat, blubber, or flipper. Evaluation in Kipnuk of these people found no one with symptoms of botulism.

Pretreatment serum from the index case was positive for type E botulinum toxin. Serum from the second case and 28 contacts at Egegik and Kipnuk were negative for toxin. All stools were negative for toxin. Samples of the whale flipper from the container linked to the two cases and whale blubber from Kipnuk showed non-specific toxicity. Whale flipper from the second container showed no toxicity. Seal oil and herring collected from the boat were negative for toxin. Eight individuals, including the two symptomatic cases, were treated with botulinum antitoxin due to their exposure to the implicated food and their remote location.

Botulism should be suspected in any Native Alaskan who presents with gastrointestinal complaints accompanied by dry mouth, dysphagia, diplopia, or muscular weakness. Signs and symptoms are often subtle; a high index of suspicion must be maintained. Obtaining a history of eating fermented foods is often difficult but should be vigorously pursued. All past outbreaks of botulism in Alaska have been traced to traditional, Native, fermented foods such as beaver tail, salmon heads, salmon eggs, white fish, and seal blubber.

All diagnosed or suspected cases of botulism should immediately be reported to the Section of Epidemiology (561-4406). See Epidemiology Bulletin No. 12, June 19, 1988, "Botulism," for detailed procedures to be followed. Copies available from the Section of Epidemiology.

(Reported by Jeff Smith, Sanitarian, Kakanak Hospital, Dillingham)

Botulism should be suspected in any Native Alaskan who has an acute gastrointestinal illness and signs or symptoms of neurologic impairment, especially difficulty swallowing, double vision, or muscular weakness.
