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*Bulletin No. 6*  
*March 17, 1975*

### **Botulism Outbreak - New Stuyahok**

On March 3, 1975, a 57-year-old Eskimo female from New Stuyahok was evacuated by air to the PHS Alaska Native Hospital, Kanakanak, Alaska, with symptoms of right arm weakness, dysphagia, and blindness in one eye. Pupils were noted to be mid position and slowly reactive. A diagnosis of cerebrovascular accident was made. Soon after admission, the patient had a respiratory arrest. She was successfully resuscitated and was noted to be flaccid and areflexic. Following several hours of increasing respiratory failure, the patient died ten hours after admission.

The following day, a 53-year-old Eskimo female from the same village was also evacuated by air to Kanakanak following a one-day history of vomiting, epigastric pain, and dysphagia. Upon being transferred to the hospital from the plane, the patient developed severe respiratory depression and arrested. Resuscitation efforts were unsuccessful.

Within minutes, a 42-year-old Eskimo female arrived at the same hospital from Manokotak, a village 75 miles southwest of New Stuyahok. She reported a history of vomiting, epigastric pain, frontal headache, and productive cough (for which she was given tetracycline), beginning on March 3. On the morning of admission, March 4, she experienced dysphagia, double vision, photophobia, and facial numbness. On physical examination, her pupils were in mid position, and reacted slowly to light. Her respiration was depressed. The diagnosis of botulism was made and two vials of trivalent ABE botulinal antitoxin were administered, one intramuscularly and one intravenously. Because of continuing respiratory depression she was evacuated by air to the Alaska Native Medical Center in Anchorage; a tracheostomy was required. This patient has not died.

Epidemiologic investigation in New Stuyahok revealed that at noon on March 2, all three patients consumed portions of an uncooked, fermented beaver tail. The beaver tail had been fermented in a plastic bag, then wet cheese cloth, and placed behind the stove for two weeks. It was also learned that both of the deceased patients had experienced diplopia, dysphagia, nausea and vomiting beginning 20 hours after eating the beaver tail. The village health aide reported that the third patient, visiting from Manokotak, vomited one hour after eating portions of the tail. She had returned home prior to the onset of symptoms. No other persons ate portions of this beaver tail, although other beaver tails prepared in a similar fashion, were eaten by many villagers.

Evidence of Type A botulinal toxin was found in the serum of all three cases and in the leftover beaver tail. This is the seventh outbreak of botulism in Alaska in the past two years and is the first reported in which Type A toxin was involved.

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