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**Bulletin No. 13**  
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**Type A Botulism In Alaska**

On Monday, September 6, a 24-year-old Alaskan Native from Angoon purchased a pint jar of fermented salmon eggs which she then shared with her two sisters, ages 23 and 14. Over the next three days, the two older women developed symptoms of nausea, dry mouth, blurred vision, dysphagia, dysphonia, weakness, abdominal fullness, dizziness, and shortness of breath. The younger sister complained of dysphagia, dizziness, dry mouth, and sore throat. On Thursday, September 9, they were air evacuated to the Mt. Edgecumbe P.H.S. Hospital where the clinical diagnosis of botulism was made. The 24-year-old woman, who was breast-feeding her 8-month-old daughter, required respiratory support and was intubated shortly after her arrival at the hospital. The baby showed no signs of illness and was placed under close observation. The three sisters were treated with trivalent botulism antitoxin.

Epidemiologic investigation revealed that the three women lived in separate homes and did not share meals. The only food eaten in common was the jar of fermented salmon eggs purchased and eaten Monday, September 6. The purchased salmon eggs were part of a large batch of eggs prepared by another woman in Angoon. The eggs had been obtained during the last week of August. They were soaked overnight in water and then cleaned and salted. A one gallon mayonnaise jar was filled and the remaining eggs were placed in three smaller jars. They were sealed with waxed paper under the lids, placed in a corner of the kitchen, and kept at room temperature while they fermented. On Monday, September 6, approximately twenty people ate eggs from the large mayonnaise jar. One of the smaller jars was sold to the 24-year-old index case. Two other small jars were given to friends of the woman who prepared the eggs. On Thursday, September 9, all persons who had eaten eggs from any of the jars were interviewed, given a physical examination, and had blood drawn for botulism toxin assay. No additional cases were discovered, and intensive surveillance was maintained in the village to detect any further cases. None have occurred.

Type A botulinal toxin was detected in the serum of the 24-year-old woman, in the stool of the 23-year-old woman, and in left-over salmon eggs in the implicated jar. No toxin was recovered from a sample of the breast milk obtained from the 24-year-old nursing mother approximately 4 to 5 hours after administration of trivalent botulism antitoxin. No toxin was detected in any of the 21 people who ate salmon eggs but who did not eat from the implicated jar. Further tests are pending.

The two younger sisters have recovered. The 24-year-old woman required respiratory support for two weeks and is slowly improving. Her 8-month-old baby never developed any symptoms. There was a striking correlation between the amount of eggs ingested and severity of symptoms. The woman requiring respiratory support ate three-fourths of the jar of eggs. The 14-year-old sister with only mild symptoms ate only five spoonfuls of eggs.

This is only the second outbreak of Type A Botulism reported from Alaska. It is the third outbreak of botulism in Alaska in 1976. All three outbreaks involved Native foods which are fermented and considered delicacies in parts of Alaska.

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