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To: ALL HEALTH CARE PROVIDERS including Physicians and Nurses
From: Poison Center Education Team
Subject: Treatment of Scombroid Fish Poisoning
Date: May 2022

Scombroid Fish, Scombrototoxin, and Histamine Fish poisoning

Scombroid poisoning is a common cause of illness related to the ingestion of seafood. Deep water fish such as tuna, bonito, mackerel, and albacore may have high concentrations of the free amino acid, histidine in their dark meat. Other fish that may contain high amounts of histidine are amberjack, mahi-mahi, bluefish, marlin, sockeye, salmon, herring sardines and anchovies. After the fish is caught bacteria can convert histidine to histamine.

Refrigeration usually reduces the formation of histamine. Prolonged drying reduces the histamine content but freezing, smoking, and cooking do not destroy preformed histamine or prevent scombroid poisoning. Rapid cooling of the fish after catching and the maintenance of adequate refrigeration during handling and storage reduces the risk for scombroid poisoning.

Symptoms begin rapidly with 10 minutes to 2 hours after consumption of contaminated fish. Symptoms resemble an acute allergic reaction. Headache, difficulty swallowing, flushing, perioral paresthesia (pins and needles feeling), itching, urticaria (hives rash), diaphoresis (sweating), eye redness, nausea, vomiting, diarrhea, bronchospasm, and abdominal cramps are some of the clinical effects that may be noted. Flushing typically appears on the face and upper body. Symptoms usually resolve within 8-12 hours and rarely last more than 24 hours.

Treatment is supportive. Most cases will respond to H1 and H2 antihistamines. Case reports suggest intravenous administration of H1 diphenhydramine 25mg -50mg and an H2 receptor antagonist (300mg cimetidine or 20mg famotidine) if available. Fluids, antiemetics and bronchodilators should be administered as indicated by clinical presentation.

**Our certified nurse specialists in poison information and physician toxicologists
are available 24 hours a day to answer your questions**