



2010 Advisory # 25 Ciguatera fish poisoning in NYC

- **Recognize the signs and symptoms of ciguatera fish poisoning which includes gastrointestinal, cardiovascular, and neurological symptoms.**
 - **Ask patients presenting with these symptoms if they recently consumed reef fish such as barracuda, grouper, and snapper.**
- **Advise your patients that eating barracuda puts them at risk for ciguatera fish poisoning.**
- **Report all known or suspected poisonings, including ciguatera fish poisoning, by calling the New York City Poison Control Center 24 hours a day/7 days a week at (212) POISONS (764-7667).**

Please Distribute To All Clinical Staff In Emergency Medicine, Internal Medicine, Pediatrics, Family Medicine, Neurology, Intensive Care, Cardiology, Infectious Disease, And Primary Care. Please Share with your Non-Hospital Based Colleagues.

November 9, 2010

Dear Colleagues,

Since August 7, 2010, the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) has identified at least 10 cases of ciguatera intoxication associated with consumption of locally purchased barracuda.

- A family of six became ill shortly after consumption of barracuda on 8/6/10. On average symptoms started six hours after eating and included: nausea; vomiting; diarrhea; abdominal cramps; itching; difficulty walking; headache; dizziness; myalgia; swollen tongue; faintness; palpitations; and hypotension. Samples of raw barracuda from the fish market where the fish was purchased and cooked barracuda from the home all tested positive for ciguatoxin. The fish was traced back to a distributor in Florida.
- Two people consumed barracuda at a restaurant on 8/16/10 and within a few hours developed: nausea; vomiting; diarrhea; abdominal cramps; chills; myalgia; itching, and difficulty walking. The fish was traced to the same NYC supplier and Florida distributor.
- On 8/24/10, two friends purchased barracuda together at a different fish market in NYC and cooked it separately for their families on the same day. Symptoms consistent with ciguatera poisoning developed on the following day and included: nausea; vomiting; diarrhea; fever; itching; myalgia; difficulty walking; weakness; and hot flashes.
- An individual case of suspected ciguatera poisoning was reported to PCC on 9/15/10. The case presented with multiple episodes of diarrhea, weakness, myalgia, and bradycardia that began a few hours after eating barracuda. The barracuda in this case was purchased at a different fish market in NYC and traced back to a different distributor in Florida.

Ciguatera fish poisoning occurs after ingestion of fish containing ciguatoxins. Ciguatoxins are produced by algae in warm tropical waters and bioaccumulate in the largest predatory fish. The toxin is stored in the tissues of the fish and is not destroyed by any manner of cooking. Although many Caribbean fish have been associated with poisonings, including amberjack, grouper, snapper, and mackerel, all of the recent cases in NYC were from **barracuda**. In general, the larger the fish, the more toxin it may contain. Most cases of ciguatera fish poisoning occur in Florida. Many of the NYC cases were not aware that they were eating barracuda.

Acute gastrointestinal symptoms typically present within 24 hours of ingestion and include vomiting, diarrhea and abdominal pain, which resolve within the first few days. Cardiovascular symptoms may include hypotension with a relative bradycardia generally resolving within two to five days. Neurological symptoms typically follow the onset of GI symptoms and include paresthesias of the extremities and circumoral region, metallic taste, a feeling of loose teeth and dental pain. Other common paresthesias include pruritus, feelings of biting on the skin and reverse temperature sensation. Neurological symptoms typically last for several weeks, but may persist for months in severe cases.

The differential diagnosis of ciguatera fish poisoning is broad and the management is typically supportive although some interventions may effectively reduce symptoms if diagnosed early. For assistance with the diagnosis and management of patients with suspected ciguatera fish poisoning and to report any confirmed or suspected cases, call the NYC Poison Control Center at 212-POISONS 24 hours a day/7 days a week at (212) POISONS (764-7667). Once notified, the NYC DOHMH will work with New York State and Federal agencies to remove any remaining fish from the market.

As always, we appreciate our ongoing partnership with NYC healthcare providers in reporting cases of poisonings.

Sincerely,

Nancy Clark

Nancy Clark, MA, CIH
Assistant Commissioner, Bureau
of Environmental Disease
Prevention

Robert Hoffman

Robert Hoffman, MD
Director, NYC Poison
Control Center

Nathan Graber

Nathan Graber, MD, MPH
Director, Environmental and
Occupational Disease
Epidemiology