

8 TOXIN INGESTION

a Cases of suspected scombroid poisoning following fish ingestion in Gauteng Province

A number of cases of possible scombroid fish poisoning have been identified by private physicians in Johannesburg: A 37-year-old male presented with nausea and vomiting, abdominal pain, hot flushes, tingling of the lips, severe malaise and hypotension (blood pressure 80/60 mmHg) following ingestion of fish at a well-known fish restaurant chain. A 52-year-old male presented with severe vertigo, nausea, vomiting and hot flushes after a fish meal, also eaten at a well-known fish restaurant chain. Similar symptoms (flushing, abdominal discomfort, nausea and vomiting, numbness of the lips) were reported by a family on the West Rand, who ate fish obtained from a fishery.

Scombroid fish poisoning occurs after eating fish that contains high levels of histamine because it has been poorly preserved. Certain fish in the Scombridae family – including mackerels, tuna, bonitos, sardine, anchovy and herring, contain large amounts of the amino acid histidine. At

temperatures above 16°C, histidine is converted to histamine by contaminating bacteria. When ingested, the histamine provokes symptoms identical to those of an allergic reaction – flushing of the face and upper body, severe headache, palpitations, itching, abdominal cramps and diarrhoea. In severe cases, hypotension, arrhythmia and respiratory compromise may occur and require hospital admission and supportive care. Treatment is with anti-histamines. Symptoms are usually self-limiting and last for 10-14 hours. Fish contaminated with histamine has a peppery, sharp, or salty taste, and a bubbly feel, though it may also taste normal. Histamine is temperature stable, so cooking, smoking, canning or freezing will not destroy histamine, nor render fish safe to eat. Prevention of scombroid is through appropriate preservation of fish at temperatures <3.3°C.

Source: Division of Public Health, Surveillance and Response, NICD-NHLS (outbreak@nicd.ac.za)