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## A fishy Tale - Puffer fish poisoning in Bangladesh

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**Objective:** Puffer fish (tetrodotoxin) poisoning is not uncommon in Bangladesh especially in coastal belt with considerable numbers of deaths. The cluster of poisoning cases are sporadically involved many of the river rain districts and sea belt areas of Bangladesh. Around the world it is popularly known fugu (in Japan), toadfish, blowfish, balloonfish, globefish. In Bangladesh the fish is popularly known as potka fish (local name, dora potka or badami potka) or tepa fish. There are nearly 100 different species and 38 of them are found in Japan. Tetrodotoxin (TTX), a potent neurotoxin, was first isolated and named in 1909 in Japan. The fish belongs to the order Tetraodontidae which also includes ocean sunfish and porcupine fish. TTX is also found in the venom of the blue-ringed octopus around Australia. Neuroparalysis involving Na gated voltage channel are responsible for fatality. The objective of this study is to report the outbreaks of puffer fish and related tetrodotoxin poisoning in Bangladesh

**Methods:** Systematic Review of literature on puffer fish poisoning related to Bangladesh outbreaks

**Results:** So far there were fifteen outbreaks of TTX poisoning in Bangladesh, occurring between 1988 to 2016 and involving 368 victims with a death toll of 60 (16.3 %). Twenty (20) species of puffer fish are available in Bangladesh, of which two are freshwater puffer (*Tetraodon patoca* and *Tetraodon cutcutia*) and the rest are marine puffer (mainly *Takifugu oblongus*). *Tetraodon patoca* is commonly found in the southern part and *Tetraodon cutcutia* in the northwest, northeast, and northern part of the country. A total of nine marine puffer fish species were found in coxobazar belt amongst which the most abundant species was *Takifugu vermicularis* followed by *Lagocephalus lunaris* while the lowest abundance was observed for *Takifugu poecilonotus*. Out of the fifteen outbreaks, three were caused by freshwater species, eleven by marine species, and one by unidentified species. Common clinical features of TTX poisoning are perioral numbness, paresthesia of face, tongue, and extremity, salivation, nausea, vomiting, diarrhea, abdominal pain, vertigo, dizziness, etc. There is no specific antidote for TTX poisoning, sporadic cases were managed with neostigmine and atropine and respiratory muscle paralysis is the main cause of death.

**Conclusion:** Building awareness is the main way of preventing this type of serious poisoning.