Country report: CFP in Thailand

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Recent poisoning cases

- Summary
- PSP (Paralytic Shellfish Poisoning)
- DSP (Diarrhetic Shellfish Poisoning)
- ASP (Amnestic Shellfish Poisoning)
- NSP (Neurotoxic Shellfish Poisoning)
- CSP (Ciguatera Shellfish Poisoning)
- PFP (Puffer Fish Poisoning: fugu)
PSP

- May 1983 in Pranburi, Prachuap Khiri Khan (63 patients, 1 died)
- Consuming contaminated mussels (Perna viridis) in the red-tide area of Pranburi river
- Saxitoxin found in high level of mussels
- The specific causative plankton could not be confirmed
Horseshoe crab food poisoning
Tetrodotoxin Poisoning following ingestion of the toxic eggs of the horseshoe crab (Carcinoscopius rotundicauda) a case series from 1994-2006

- 280 cases admitted to the medical service of Chonburi hospital
- 4 severely stages based on clinical signs and symptoms of human tetrodotoxication
- 245 available medical records: 100 stage 1, 74 stage 2, 3 stage 3, 68 stage 4
- Symptoms and signs: circumoral and lingual numbness (98%), hand and feet numbness (94.7%)
• Weakness (59.6%), dizziness and vertigo (54.3%), nausea and vomiting (52.6%), transient hypertension (39.6), respiratory paralysis (27.7%), fixed dilated pupils (14.7%), ophthalmoplegia (12.2%), blood pressure lower than 90/60 mmHg (5.7%) and polyuria (0.4%)
• All patients received symptomatic and supportive treatment
• Endotracheal intubation and mechanical ventilation were considered when paralysis was progressive rapidly
The results of treatment

- 239 patients (97.5%) show completely recovery, 5 patients (2% died) and 1 patient (0.4%) suffered anoxic brain damage
- Horseshoe crab poisoning occur both sporadically and epidemically in Chonburi
- Seasonal variation in the number of cases was observed with a peak from December through March
Ciguatera case report

- There were 2 outbreaks
- 2007  Bangkok (2 patients)
- 2008  Phuket (4 patients)
- (Saraya, A. et al. 2012)
Ciguatera toxin: another cause of gastrointestinal-neurological syndrome


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Background

- Food poisoning (gastroenteritis)
- Symptom: nausea, vomiting, diarrhea
Objective

- To identify patients with CFP
- To survey for contaminated ciguatera toxin in fish samples during the incidents
Methods

• Patients who fulfilled criteria of CFP
• Symptom: severe GI disturbances, neurological manifestations, compromised cardiovascular status with autonomic dysfunction
• All had dramatic recovery with 1-3 days
• They were admitted to emergency department of King Chulalongkorn Memorial 2007 and Phuket Provincial Hospital in 2008
• Fish samples were collected randomly at fish markets in Bangkok
• Examined for the presence of ciguatera toxin by Cigua-Check@kit
Results

- 2 outbreaks
- 2007 in Bangkok (2 patients)
- 2008 in Phuket (4 patients)
Results (cont.)

- All had severe GI symptoms
- One had acute ventilatory failure requiring support whereas the remaining had neurological disturbances of paresthesia, severe vertigo and ataxia
- Absence of reflex tachycardia was noted in all patients who had severe volume depletion and shock.
Results (cont.)

• The most severe patients could be extubated within 24 hours and was discharged in 48 hours
• All of the remaining recovered completely within 48 hours
• 69 fish samples from 3 fish markets in Bangkok were examined
• There were no sample positive for ciguatera toxin
• However 2 of 158 fish-fillet slice showed border line results
Conclusion

• Severe abdominal pain, nausea and vomiting and autonomic compromise in the form of bradiacardia in spite of hypotension and dramatic recovery within 48 hours were noted in all cases

• Although ciguatera toxin in tested fish samples was negative this should not be misleading

• Finding sporadic clusters of victims should be reported to health authorities

• Physicians should be aware of CFP as one of the differential diagnoses of gastroenteritis like syndromes.
Thank you