

Biological poisonings. Snake venom and arthropod envenomations.

Mushroom poisoning. (Mycetismus) and Phalloid mushroom poisoning – clinical presentation, diagnostic build up, prehospital and hospital treatment

I.Snake envenomations

1.1.Venomous species in Bulgaria/world wide – general characteristics,hints on distinguishing between venomous and non venomous species

2.1.Mechanism of action of snake venom

-local toxicity

-general toxicity- cardiac, CNS,heamotoxicity

-anaphylactic potency

2.2.clinical presentation and severity

-grade 0

-grade 1

-grade 2

-grade 3

2.3.Treatment approaches

-first aid at the scene/prehospital treatment

- in hospital treatment

*ABCDE

*symptomatic/supportive treatment

*indications for antidote application and possible risks associate with it

II.Arthropode envenomations

2.1.common species found in Bulgaria

2.2.mechanism of toxicity of arthropode venom

local toxicity

-general toxicity- cardiac, CNS,heamotoxicity,nephrotoxicity

-anaphylactic potency

2.3. clinical presentation

2.4.treatment approach

*ABCDE

*supportive/symptomatic treatment

*anaphylaxis protocol

III.Mushroom poisoning – epidemiology and specificities (seasonal distribution, more than one patient affected)

3.1. benign mushroom poisoning, mushroom gastroenterocolitis/mycetismus

- *pathogenesis
- *clinical presentation – onset of symptoms as milestone
- *laboratory findings and follow up
- *supportive/symptomatic treatment
- *discharge criteria

3.2. Phalloid mushroom poisoning

- mushroom species
- toxicodynamics- amanitin, phalloidin
- differential diagnose with other mushrooms muscarinic, mycoatropic, hallucinogenic types
- clinical presentation
- *early phase – differential diagnose with the benign poisoning onset as milestone
- *liver failure stage- mechanisms, symptoms of the liver failure syndrome
- *progression and prognosis(very poor)
- *laboratory findings th importance of serial LFTs
- *treatment plan
- ABCDE
- aggressive GIT decontamination
- supportive/symptomatic
- invasive extracorporeal blood decontamination
- liver transplant
- prevention of late complications
- Penicillin as an antidote

CLINICAL CASE

A 34 Y/O backpacker is brought back from the mountains by his friends, where he was said to have gone on a “spiritual trip” which involved living in the rough and surviving on plants and mushrooms. He was found unconscious, next to the leftovers of unknown cooked mushrooms, his linen heavily soaked with bloody diarrhea, he looks extremely jaundiced, and on the way to the hospital 2 seizures were witnessed by his friends

- what do you think might have caused the symptoms described and when do you think was the possible onset of the accident
- what tests would you request asap and why
- what would be your immediate course of action