

First aid considering head injury

Cause of injury, possible complication, management

Tamara Skříšovská

Learning objectives

- Student will learn the basic algorithm for approaching a patient with a head injury.
- Student will learn how to evaluate the patient's state of consciousness.

Cause of injury

Falling from a great height

Sport activities

Traffic accident

Violent attack

Cause of injury- severity

- Contusions or injuries to the scalp
- Brain concussion
- Calvaria and cranial basis fractures
- Severe traumatic brain injury (high- energy)
 - monotrauma or as a part of polytrauma
 - risk of intracranial bleeding (epidural, subdural)
 - internal bleeding does not have accompanied by external injuries

When to seek medical help?

Loss of
consciousness

Retrograde
amnesia

Repeating vomiting

Worsening
headaches

Sensory
impairment (visual,
hearing)

Sudden
behavioural change
(aggression,
apathy...)

Bleeding/ liquid
from nose, ears

Seizures

Weakness /
numbness in
extremities

Difficulties walking
or talking

Unequal pupil width
(anisocoria)

Management

- According to severity of the injury
- CAVE suspect cervical neck injury
- Basal algorithm **ABCDE**
- Evaluation of consciousness using AVPU:
 - Alert- fully conscious
 - Verbal- reaction on verbal stimuli
 - Pain –reaction on painful stimuli
 - Unresponsive-does not react to any kind of stimuli

Management

1. Safety
2. Position (conscious vs. unconscious)
3. Call for help (ZZS)
4. Thermal Comfort
5. Stop bleeding

Conclusion

- Patient's state can change rapidly (lucid interval), do not leave the patient alone and have a plan how to react in case of loss of consciousness or cease of breathing (CPR)
- If the person was injured during sport activities, do not let him/ her continue, unless checked by medical professional
- The patient should seek medical help if: over 65 years old, taking anticoagulant medication, has undergone neurosurgery, alcohol or drug intoxication involved

Learning outcomes

- Student is able to recognize the symptoms of serious head injuries.
- Student knows when to seek medical help for a head injury.

Sources

- <https://www.prpom.cz/urazy-hlavy/>
- <https://mladyzdravotnik.cz/prvni-pomoc/poraneni-hlavy/>
- <https://www.moh.gov.sa/en/HealthAwareness/EducationalContent/Firstaid/Pages/008.aspx>
- AUSTIN, Margaret, Rudy CRAWFORD a Vivien J. ARMSTRONG. *První pomoc: autorizovaná příručka organizací St John Ambulance, St Andrew's First Aid a British Red Cross*. Přeložil Petr STŘÍBRNÝ. V Praze: Slovart, 2015. ISBN 9788073913861.

MUNI | SIMU MED