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MED

Suspected abdominal injury

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Learning points

- Student will learn to recognize the mechanism and types of abdominal injuries.
- Student will learn to know when it is an emergency.
- Student will learn the correct procedure of first aid in case of possible internal bleeding.

Mechanism and types of abdominal injuries

- impact on the abdomen (eg blunt blow, kick, abdominal compression)
- stab wounds, gunshot wounds or crush injury
- effect of significant mechanical force on stomach and chest area (especially falls from heights or high speed bumps, car accidents, pressure wave action)

Mechanism and types of abdominal injuries

- organs and large vessels can be punctured, lacerated or ruptured
- protruding abdominal contents
- external bleeding
- internal injury and bleeding

Mechanism and types of abdominal injuries

- Damage and subsequent bleeding from organs in the abdominal cavity (liver, spleen, kidney, intestines), or large vessels.
- Perforation of the intestines, stomach, with subsequent development extremely dangerous inflammation.
- Rupture of the diaphragm (located between the thoracic and abdominal cavities and participates in our respiration) - the injury is immediately accompanied by severe respiratory failure.
- Urinary tract rupture with possible development of inflammation in the area.
- Injuries to the female genitals, especially in the case of pregnancy (uterus, ovaries).

Primary survey

S = safety

S = stimulate

S = shout for help

(C) – try to stop massive external bleeding

A = airway

B = breathing

C = circulation

Secondary survey

– History

- what happened? last meal? ..
- anamnesis - allergies, drugs, health problems

– Symptoms

- what does the casualty feel? does it hurt? where?
- nausea / dizziness / heat or cold / thirst ..

– Signs

- use of all senses - examination "from head to toe,,

Head-to-toe examination – abdominal injury

- feel the casualty's abdomen and both hips
- detect any signs of bleeding
- identify hard or soft areas of the abdominal wall
- compare both sides of the abdomen
- check clothes for signs of incontinence (urine) or blood (from body orifices)
- notice changes in skin color / bruising
- pale, cold, sweaty skin indicates shock

What did we find out?

- closed / covered abdominal wound
 - the wound is not fully visible, but the internal organs may be injured
- opened / penetrating abdominal wound
 - there is visible wound on the abdomen, organs such as intestinal loops may be excreted
- foreign object stuck in the abdominal wall
 - we never take it out, we just fix it in the wound and cover it sterile

Closed / covered abdominal wound

- these are very serious injuries (up to 90% of abdominal injuries)
- symptoms may not always be obvious, they may be marked very little
- think of internal bleeding (unnatural tension of the abdominal wall muscles and severe pain when touched in epigastrium), which very often complicates abdominal injuries and which can cause the patient's death

Closed / covered abdominal wound

Signs and symptoms:

- the victim is often found in a "relieved position" on the side, the limbs pulled to the body
- indicates pain of varying intensity and character
- paleness and sweating (mostly cold sweat), nausea, possibly vomiting, less palpable heartbeat - development of shock
- the condition can result in loss of consciousness

Closed / covered abdominal wound

First aid:

- ensure immediate emergency medical assistance (call 155) - required medical treatment as soon as possible
- when unconscious, place the victim in recovery position
- when the victim is conscious let the rescue side position - manipulate with disabilities only in extreme situations
- we immediately start anti-shock measures, especially we pay attention to thermal comfort and calming of the patient
- we forbid eating, drinking, smoking, do not give medication

Opened / penetrating abdominal wound

- stabbing, cutting or gunshot wound
- falls on a sharp object
- crashes in car accidents

Caution!

Injuries that appear superficial at first glance can penetrate deep into tissues and body cavities. Therefore, they cannot be underestimated, especially if we have not witnessed its creation.

Opened / penetrating abdominal wound

First aid:

- gentle laying casualty on the back - we handle very carefully
- if it is not possible to position due to pain, we try to leave the casualty in the most comfortable position for him with maximum access to the wound
- in case of massive bleeding from the wound, apply a thick absorbent layer and compress sufficiently
- with gentle bleeding from the wound, sterile dressing is enough

Opened / penetrating abdominal wound

First aid:

- prolapse of organs - we do not touch, we cover sterile, it is suitable to soak the sterile cover in clean water and keep it moist, we never bandage it around the body
- we fix the foreign body in the abdominal wall and overlay it sterile
- we perform anti-shock measures with an emphasis on reassuring the patient and providing warmth
- it is a matter of course to call an ambulance

Summary

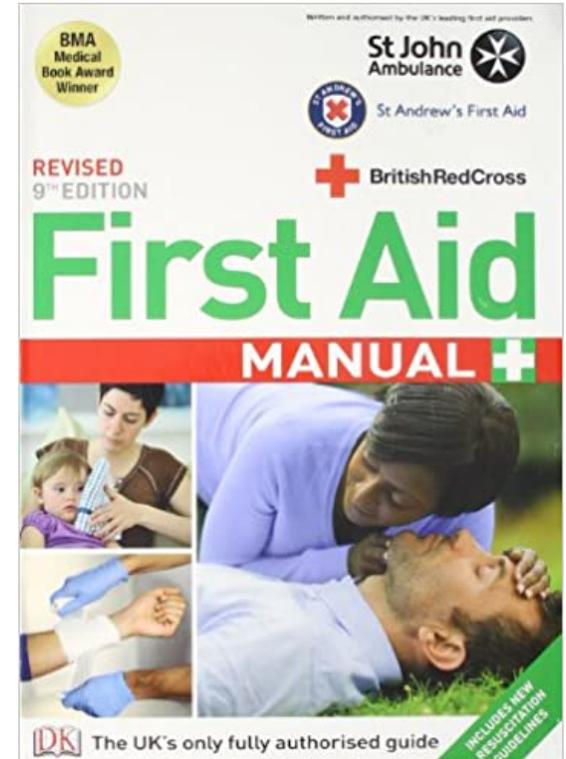
- Safety always comes first.
- When internal bleeding is suspected, the goal is to minimize shock.
- In the event of a serious abdominal injury, it is important to arrange an emergency transfer to the hospital or the arrival of an ambulance to the place of disability.

Learning outcomes

- Student is able to list the types of abdominal injuries and the most common mechanism of their occurrence.
- Student is able to recognize signs of shock.
- Student is able to discuss the principles of first aid in suspected abdominal injuries.

Sources and references

- First Aid Manual: The Authorised Manual of St. John Ambulance, St. Andrew's Ambulance Association and the British Red Cross
- Vital Signs (Body Temperature, Pulse Rate, Respiration Rate, Blood Pressure), <https://www.hopkinsmedicine.org>
- <https://www.stjohn.org.nz/First-Aid/First-Aid-Library/Abdominal-Injuries>



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