

# Traumatic asphyxia: An autopsy case

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## SUMMARY

Traumatic asphyxia is a form of asphyxia where respiration is prevented by external pressure on the body. A 19-year-old man was found by relatives compressed by motorboat in the garage. The death was investigated by the prosecutor; body was taken to the Morgue Department for performing autopsy. On gross physical examination; the face, neck and upper part of the chest were congested and many petechiae were observed on the conjunctivae, but not in low extremities. Autopsy macroscopic examination of lungs revealed congestion, sub pleural superficial bleeding areas. In the presented case death was reported as traumatic asphyxia by thorax compression without other lethal factors.

**Keywords:** traumatic asphyxia – death – autopsy

## Traumatická asfyxie: Autoptická kazuistika

### SÚHRN

Traumatická asfyxia je druh dusenia, pri ktorom je vonkajšie dýchanie obmedzené externým tlakom na hrudník alebo brucho. Autori predkladajú prípad 19-ročného muža, ktorý bol nájdený príbuznými pritlačený medzi motorový čln a stenu garáže. Nakoľko smrť vzbudila podozrenie dozorujúceho prokurátora (štátneho zástupcu), bola následne vykonaná pitva obete. Pri vonkajšej obhliadke bola zistená výrazná stáza krvi na tvári, krku a hornej časti hrudníka spolu s pretečiami v spojivkovom vaku. Dolné končatiny podobné známky nevykazovali. Taktiež boli nájdené bodkovité krvné výrony na hornej časti brucha, vpravo na krku a krvné výrony tiahnuce sa na pravú dolnú časť hrudníka k rebrovému oblúku. Na pľúcach bolo zistené výrazné prekrvenie a plošné bodkové krvácania. V predkladanom prípade bol náraz spôsobujúci stlačenie hrudníka detailne potvrdený až pitvou a policajným vyšetrovaním – smrť bola následne stanovená v intenciách úrazovej asfyxie pri stlačení hrudníka.

**Kľúčové slová:** traumatická asfyxia – smrť – pitva

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*The form of asphyxia where respiration is prevented by external pressure on the body: a heavy weight compressing the chest or abdomen, wedging of the body within a narrow space death in large crowds is traumatic asphyxia (1,2). Facial congestion and swelling with petechiae of the conjunctivae, face and upper chest are common described findings and is named as Perthe's syndrome (1-9). In the presented case the force causing the chest compression was distinctly determined by the autopsy and crime scene investigation.*

## CASE REPORT

A 19-year-old man was found by relatives, compressed by motorboat in the garage while he was working for installation of the boat. The death was suspected by the prosecutor and victim was taken to the Forensic Council Bursa Morgue Department for further examination. The victim was 184 cm in height and 85 kg

in weight man. On gross physical examination; the face, neck and upper part of the chest were congested and many petechiae were observed on the conjunctivae, but not in low extremities. 10x8 cm ecchymotic bruises on upper abdominal region, 5x2 cm ecchymosis on right cervical region and ecchymotic bruises spreading to the right lower part of the chest and arcus costae, (Fig. 1), 8x4 cm ecchymotic abrasion on right anterior superior iliac spine line were detected. Minimal subcutaneous haemorrhages were observed in the chest wall during autopsy (Fig. 2). Bleeding without subcutaneous haemorrhage was observed in the inferior part of the right sternocleidomastoid region. Macroscopic examination of lungs revealed congestion, widespread sub pleural superficial bleeding areas (Fig. 3) and histopathological examination showed hemorrhagic alveolar oedema. Tracheal mucosa was hyperaemic. Toxicological analysis revealed none of the substances screened for in systematic toxicological methods. Death was reported as traumatic asphyxia by thorax compression without other lethal factors.

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## DISCUSSION

Traumatic asphyxia is caused by compression of the chest by heavy objects, preventing respiratory movements, restricting venous return from the head (1). Causes of crush asphyxia have varied and have included entrapment beneath or within motor vehicles, heavy machinery, also deaths in large crowds, wedging