FORENSIC AND CRIMINAL SIGNIFICANCE OF THE CORRECT DETERMINATION OF VITALITY OF TRAUMATIC INJURIES BY CLINICIANS.

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ABSTRACT:

INTRODUCTION: In clinical practice, especially concerning general practitioners and doctors in emergency rooms and ambulances, diagnosis of death might be necessary. In cases of deceased, which are not primarily objects of forensic examination, the knowledge of medical specialists of postmortem changes and signs of vitality might be crucial for the investigation. If misinterpreted, postmortem changes might lead to wrong conclusions and needless start of investigation process in cases with no data of violent death. MATERIALS AND METHODS: Forensic examination of cadavers that were primary examined and diagnosed incorrectly by general practitioners as violent death. RESULTS: In the Department of forensic medicine and deontology – Medical university of Sofia, there are over 900 autopsies each year. In some of them the forensic examination happened to be not necessary, because of misleading information given by general practitioners that had mistaken postmortem changes with traumatic injuries. Even though in these cases the GPs had information about the diseases of the deceased patients, their conclusions led to suspicions and initialization of criminal investigation and additional expert complications. DISCUSSION AND CONCLUSION: The basic knowledge concerning features showing vitality of traumatic injuries is crucial for all medical clinicians. Nevertheless, in cases difficult for interpretation, every clinician might ask for consultation by forensic examiner in order not to make wrong conclusions that might mislead the investigators.

Key words: post-mortem injuries, traumatic injuries, vital signs.

INTRODUCTION:

In clinical practice, especially concerning general practitioners and doctors in emergency rooms and ambulances, diagnosis of death might be necessary. In cases of deceased, which are not primarily objects of forensic examination, the knowledge of medical specialists of postmortem changes and signs of vitality might be crucial for the investigation. If misinterpreted, postmortem changes might lead to wrong conclusions and needless start of investigation process in cases with no data of violent death.

According to some researches, most of the cases of cadavers found in an advanced stage of decomposition most were socially isolated mature males discovered at home. The effectiveness of determination of the cause of death was 80% of cases and about the manner of death - 86.6%. (Maujean et al, 2016). In cases of incompetent preliminary given conclusions about the cause and manner of death might lead to serious investigational and forensic expert difficulties in explanation of the different diagnoses. There are some well-known forensic methods of examination and additional analyses, which might be useful in determination of timing of the traumatic injuries – ante mortem or post mortem. Such evaluation of the timing of traumatic injuries is possible during the forensic examination of the cadavers, which means that in borderline cases the best decision for a general practitioner or other medical specialist who registers the fact of death would be not to give a final opinion

(Raekallio et al, 1971).

Some insects, other arthropods and bigger animals might cause post mortem injuries that might be misinterpreted as vital and traumatic ones. Moreover, the entomological analyses might be helpful in determination of timing of death. This type of knowledge is again in the specific area of forensic entomology and other medical specialist should abstain themselves of comments about the genesis of the injury – traumatic or non traumatic, ante or post mortem (Singh et al, 2016; Bachmann et al, 2010; Voss et al, 2007).

MATERIALS AND METHODS:

Forensic examination of cadavers that were primary examined and diagnosed incorrectly by general practitioners as violent death.

RESULTS:

In the Department of forensic medicine and deontology – Medical university of Sofia, are performed over 900 autopsies each year. In some of them the forensic examination happened to be not necessary, because of misleading information given by general practitioners that had mistaken postmortem changes with traumatic injuries. Even though in these cases the GPs had information about the diseases of the deceased patients, their conclusions led to suspicions and initialization of criminal investigation and additional expert complications. Cases from forensic practice are presented in support of the abovementioned.

Cases presentation:

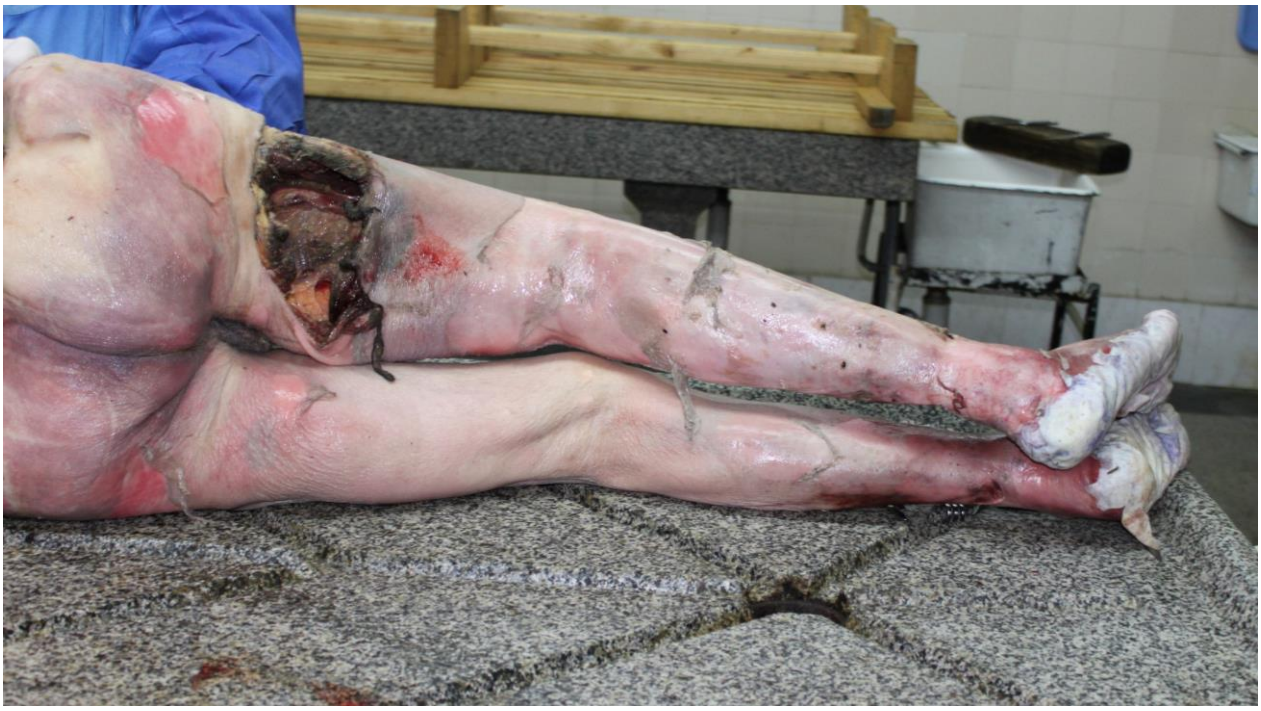
The first case (picture 1) was of a 87-year - old female, who was found dead in her apartment. Her family doctor (general practitioner) attended the death scene in order to issue a death certificate. When the GP arrived he observed skin changes and stated that they were extensive traumatic injuries (excoriations), so the investigators were informed by the GP that it was a case of a murder. Investigation was started and the cadaver had to be examined by e forensic examiner. The latter came to the "crime scene", and after a cautious examination of the cadaver stated that the injuries were post mortem, caused by ants and cockroaches (a lot of them were all over the dead body). The autopsy revealed no signs of vital traumatic injuries, so the conclusion was corresponding to the one given by the forensic examiner at the so called "crime scene". The cause of death was myocardial infarction.

The second case (picture 2) was a cadaver of a 83-year - old male, found death in a wood. There were tissue defects and ruptures in the depth of the femoral soft tissues that were misinterpreted by a general practitioner (who was there in order to fill in a death certificate) as vital injuries. After the forensic autopsy, including external and internal examination revealed that the wounds were post mortem and were caused by dogs. The cause of death was ischemic heart disease.

The third presented case (picture 3) is a male individual that was found in an advanced stage of decomposition. A medical doctor who worked for a funeral agency (he registered the fact of death and filled in the death certificates of people who did not have a family doctor) thought the liquefaction and drying of the soft tissues of the face were actually vital traumatic injuries (bruises and hematomas).

All of the abovementioned mistakes and misleading interpretations led two wrong conclusions, initiation of investigation and expert difficulties.

Picture 1.



Picture 2.

Picture 3.

DISCUSSION AND CONCLUSION:

The basic knowledge concerning features showing vitality of traumatic injuries is crucial for all medical clinicians. Nevertheless, in cases difficult for interpretation every clinician must ask for consultation by forensic examiner in order not to give wrong conclusions that might mislead the investigators.

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