

FORENSIC TRAUMATOLOGY**H.V. Nurmatov**

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Abstract:The article presents a detailed morphological description of criminal injuries caused by a socket wrench with edge deformation, a screwdriver with a groove on the working plane, and a special knife for bleeding the carcasses of slaughtered animals.

Keywords:Forensic medical traumatology, identification of traumatic objects, individual characteristics of injuries, contact part of objects, damage to the skin and bones.

INTRODUCTION:Forensic medical traumatology is one of the most important sections of forensic medical examination. The accumulated scientific and practical materials on injuries from blunt and sharp objects, injuries from shots from a firearm, and from exposure to vehicles allows practicing experts to answer standard investigative questions that arise in everyday practice. However, in connection with the development of technological progress, new, still little-known objects, mechanisms, and devices can be used in criminal fights, which can be used as a weapon of injury.

MATERIALS AND METHODS:Investigators, not having the circumstances of the incident, witness testimony, etc., pose many questions to experts regarding the identification of traumatic objects. In such cases, an expert often has to use not only textbooks and manuals on forensic medicine, but also the work of colleagues. Such developments can be found in periodicals - collections of scientific articles, where experts report on rare cases from personal practice. Forensic medical literature contains both "classics" and "casuistry".

Replenishment of forensic literature with material from our practice on the description of injuries caused by non-standard instruments of injury.

Identification of instruments of injury during the examination of mechanical damage is one of the most important tasks, the solution of which can contribute to the prompt detection of crimes directed against human life and health. Identifying group identification signs of a traumatic object often does not present significant difficulties, since their diagnosis based on characteristic elements is well known. The forensic scientist must attempt to find individual identifying characteristics of the item or weapon used by the offender. When examining damaged skin and bones, as well as other tissues and internal organs, a fairly rich arsenal of criteria is used to make a motivated judgment about whether the object (instrument) of injury belongs to a certain group of standard or non-standard blunt and sharp objects.

RESULTS AND DISCUSSION:It is another matter to make individual identification of the non-standard weapon used by the criminal. In this case, the arsenal of identifying tools is not constant; it is replenished with data from research and observations of practicing experts. We believe that our observations will also not be superfluous for forensic and investigative practice. We present three cases of successful identification of traumatic objects with target defects from our practice [2].

Case one. Corpse gr. M., 29 years old, was found on the railway tracks a few kilometers from the station. Traces of exposure to the railway chassis were found on the body: the left hand with a shoulder blade lay between the rails on the sleepers, the right leg had an unnatural bend in the shin area, the clothes were replete with extensive tears with traces of dark oily contamination. The extent of the injury with open bone fractures and gross injuries to soft tissues, including large vessels, did not correspond to the type of blood trails. There was relatively little blood on the clothes and on the section of the railway track near the corpse. As it was established during the examination, only three wounds in the parietotemporal region of the head had intravital origin, the rest of the injuries were postmortem. The wounds on the head had an irregularly rounded shape, resembling a hexagon and were located from each other at a distance ranging from 2 to 3 cm. The edges of these wounds were bruising, edged with a hexagonal side length of 1.2 cm. In the lumen of the wounds there were separate connective tissue jumpers.

Stereoscopically, in each wound, an undamaged area of skin with a length of 0.3 cm was traced on one of the six faces (sides). The expert was able to assume that the traumatic part of the object had a corresponding defect on the contact surface. It is interesting to note that on the bones of the calvarium, according to the location of the defect in the soft tissues, the absence of chipping of the outer bone plate was determined. In addition, in the area where the compact substance was pressed, there were dark gray foreign inclusions in the form of grains of unknown origin.

Having assessed the data obtained, it became possible to give a preliminary characterization of the profile of the contact part of the traumatic object. Schematically, the profile had a contact part in the form of an irregular circle or oval with six edges. These forensic data allowed the investigation to exclude a number of not only traumatic objects and mechanisms of injury, but also some circumstances of the injury. The above characteristics of the wounds made it possible to imagine that the object had the shape of a faceted cylinder with a diameter of about 3 cm with a depression (defect) on one of the faces of the contact part. The investigation team began to purposefully search for a similar item. A set of socket wrenches was found in the suspect's gym bag. On the edge of the end part of one of the keys there was a defect in the form of a metal jam 0.3 cm long. Subsequently, the identification of this object as an instrument of injury was confirmed in other additional studies.

CONCLUSION: A targeted search for individual identifying signs of mechanical damage can provide faster detection of crimes. A routine macroscopic examination at the stage of examining a corpse at the scene of an incident or in a dissection, using high-quality illumination, a magnifying glass and stereomicroscopy can immeasurably increase the effectiveness of the examination at an early stage of the investigation.

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