



Bodies are clearly defined from the thoracic vertebrae, and in the lumbar and sacral vertebrae only arches are clearly visible and closely spaced bodies. The vertebral bodies at this stage are well differentiated. All of them have the same, primitive, quadrilateral body shape and are separated from each other by a layer of mesenchyma. The layers correspond to the future intervertebral discs.

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**EXAMPLE OF USING 3D MODELING DURING EXAMINATION
OF ACUTE HEART INJURY**

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Despite the fact that classical methods of acute trauma research are well studied and widely used in forensic medicine, in recent years in the world and domestic forensic practice have been increasingly introducing modern computer technology and three-dimensional spatial modeling, which significantly complement and improve visualization of bodily injuries, as well as increase the accuracy of identification of the arms causing injury.

Forensic identification of the stabbing-cutting tool found at the scene and seized by the investigating authorities, with the presence of stab wounds to the heart, using photogrammetry and 3D modeling of the wound canal in the heart muscle.

As the materials of the study barbed cutting tool and individual elements of the wound canal were used, which were examined using photogrammetry and subsequent 3D modeling for their compliance in the examination of acute heart injury.

An example of using the method of 3D modeling is given and its advantages in comparison with classical methods used in forensic practice during the examination of bodily injuries in the forensic identification of stabbing-cutting tools. Full compliance is shown when comparing the 3D model of a knife blade provided by investigators, its length, width at the site of the greatest thickening and bevel of the blade created by photogrammetry and three-dimensional spatial modeling with 3D models of fragments of the wound canal of stab-cut heart damage. The measurement results obtained from 3D models of fragments of the wound canal with the help of computer programs "Agisoft Photoscan" and "3ds max" are an order of magnitude more accurate than the measurements provided by classical methods.

The use of photogrammetry and modern 3D modeling technologies allows obtaining 3D models of the wound canal in the thickness of the heart muscle or any other parenchymal organ and stabbing-cutting tool, to make more accurate linear measurements and comparison of fragments of the wound canal with the probable injury tool compliance.

The electronic archive of 3D models will allow to save the parameters of damages in their original form, use them during additional, repeated or commission examinations, virtual expert experiment, as well as send by e-mail for remote consultation and investigative bodies and juries for use during court sessions.

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FETUSES ANATOMY OF THE PAROTID GLAND STRUCTURE

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Formation of the organs is a very complicated process which is not definitively studied nowadays. It is very important to study the structure of the organs and systems in association with the basic processes of morphogenesis on the basis of the findings of embryogenesis. The study of the development and forming of the topography of the parotid gland during the prenatal period human ontogenesis is of great importance for integral understanding of the structural – functional organization of the salivary apparatus and the oral cavity on the whole. The analysis of scientific literature dealing with the parotid gland anatomy is indicative of a fragmentariness and discrepancy of the data, pertaining to the syntopy and chronology of the topographic-anatomical changes during the fetal period of human ontogenesis.