

labeled with a number, a fragment of a plotting scale 1,0 cm long was placed on it to calibrate the scale and control the sizes of the object examined in computer programs.

The photos obtained in JPEG format were loaded into the computer program «Agisoft Photoscan», and 3D textured models of a wound channel fragment were created in it. The model obtained and the texture was exported in «OBJ» format. To calibrate the scale of 3D models obtained they were placed into the graphic space of «3ds max» program, which helps to reconstruct the wound channel in the graphics editor by means of 3D models of the wound channel fragments.

At first linear dimensions of injuries were measured by means of a classical method with a ruler. At different levels of immersion of a piercing-cutting object the width of the wound channel and the distance between the angles from the side of the tenon edge were accurately registered which illustrate how thick the blade is and how long separate fragments are, which in their turn reproduce the width of the blade of a sharp traumatic object. It should be noted that during examination and measuring 3D models of injuries by means of the graphics editor «3ds max» linear sizes of certain morphological parts of the wound channel were obtained with a higher accuracy to 0.001 cm, which was much higher in comparison with the classical method.

Examination of the range of depth of the wound channel obtained by means of «3ds max» program, which appeared to be 9.533 ± 0.001 cm, found the range of absolute relative deviation in this case to be 0.03. To identify a sharp traumatic tool an important diagnostic element characterizing the widest part of the blade of a piercing-cutting object and indicating the depth of immersion of the blade into the body is the inlet length of a stab injury. The inlet length in the experiment was 2.706 ± 0.0003 cm, and the range of its absolute relative deviation was 0.23%. The parameter of the inlet width illustrates the measurement of the blade thickness in its middle part in the experiment was 0.223 ± 0.001 cm. The range of its absolute relative deviation was 1.48%. The distance between the angles from the tenon side is of important identifying value to identify a traumatic sharp instrument and its thickened tenon edge. In our case illustrated the mentioned dimension is 0.422 ± 0.0003 cm with the range of absolute relative deviation of 0.52%.

The use of the three dimensional methods to identify a traumatic piercing-cutting object with specific parameters by means of 3D spatial reconstruction of the wound channel fragments provides high accuracy in solving applied tasks in modern forensic practice and criminal law science.

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THE ANATOMICAL FEATURES 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.

The objective of the study was to investigate variant anatomy and topographic-anatomical peculiarities of the human parotid gland and surrounding structures in fetuses.

The parotid gland was examined on 25 human fetuses, 130,0-375,0 mm of the parietal-coccygeal length (PCL). The following methods were applied in the course of the study: thing section of the parotid gland and parotid-masticatory area under the control of a binocular magnifying glass; macro- and microscopy; morphometry; computed 3-D design.

The parotid gland is found to be located in fetuses with 130,0-375,0 mm of PCL in a deep depression posteriorly the branch of the lower jaw, in the posterior mandibular fossa. A greater part

of the gland is located between the mandible and sternocleidomastoid muscle penetrating deeply between these structures. The skin of this particular region is thin, movable. The subcutaneous pot is thin and fused with the skin. The structure of the parotid gland of 4-10 month human fetuses is anatomically changeable which is manifested by different shape (oval, leaf-shaped, horseshoe-like, triangle, irregular tetragonal), location and syntopy. Computed 3-D design of the gland presents its volumetric description which is the most practical one – in the shape of trilateral pyramid turned to the malar arch by its base, and to the mandibular angle – by its apex. A number of structures pass through the tissue of the parotid gland including facial nerve, posterior mandibular vein, external carotid artery, auricular-temporal nerve. The parotid duct is formed due to the fusion of two extra-organ lobular branches which in their turn are formed by means of fusion of several upper and lower lobular ducts emerging from the gland tissue passing through its capsule. The direction of the parotid gland is arch-like, with upward convexity. Passing along the external surface of the mastication muscle the parotid duct touches the upper extremity of the adipose body of the cheek and penetrates through the buccal muscle into the oral vestibule where it opens in the shape of a papilla of the parotid duct. The length of the parotid duct in the fetuses of the third trimester is 8,0-26,0 mm, diameter of the lumen is within 0,8-2,5 mm. The parotid duct is projected on the skin of the face from both sides along the line from antilobium to the mouth angle. The wall of the parotid duct consists of the connective tissue rich in elastic fibers and epithelium lying the lumen of the duct. The epithelium consists of two layers – deep cubic and superficial cylindrical.

Therefore, morphogenesis and topographic formation of the human parotid gland in fetuses are influenced by a total effect of spatial-temporal factors associated with the dynamics and close syntopic correlation of organs, vascular-nervous formations and fascial-cellular structures of the parotid area. At the end of the 10th month of the prenatal development the parotid gland under the microscope demonstrates its practically definite shape, although histological processes of differentiation in it are not completed yet. A study of the specific characteristics and consistent patterns of the morphogenesis and dynamics of the spatiotemporal changes of the salivary glands will make it possible to reveal new findings, pertaining to the emergence of variants of their structure, the preconditions of the onset of the congenital malformations and acquired diseases.

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THE RISK OF BREAST CANCER METASTASIS IN WOMEN DEPENDING ON AGE

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The risk of developing breast cancer (BC) in women over 65 years of age is 150 times higher than in those under 30 years of age. The mortality rate in the older age group is almost three times higher than the mortality rate in the younger age group. The incidence of breast cancer among women aged 40-50 years in Ukraine is about 60 per 100 thousand of the population, and at the age of 50-60 almost 120 per 100 thousand. This means that women at this age are the most vulnerable and need to be screened. It is necessary to popularize and encourage modern methods of diagnosing oncopathology. It is necessary to develop a conscious desire for self-control in susceptible age groups, as in our country the number of older people in relation to the young is growing. In its turn, there is a tendency to "rejuvenate all malignant tumors." Age periods are used to predict the course of the disease.

Materials and methods: 503 cases of BC were studied. The peculiarities of metastasis in different age groups were studied. The age of the youngest patient with was 32 years, the oldest - 87 years. The mean age of women in the entire sample (n = 503) was 57.25 years (\pm 3.34). The average age of women with ductal breast cancer with metastases is lower by 6.34 years and is (50.09 years). Whereas women in the group without metastases - 59.63 years. When analyzing age values between 10 years, the situation regarding the disease is different. The number of observations in percentage, in the group with metastases in the range of 30-39 years. - 8.35% of observations, and in the group without metastases - 4.62%, in the age range of 40-49 years, in the group with metastases - 19.49%, without metastases - 9.13%. At the age of 50-59 in the group with metastases - 26.87%, without