



structure and defects in its growth during the postnatal period of ontogenesis, they can also be used while elaborating new operative approaches and maneuvers for newborns. Anatomy of major neck veins has been sufficiently described in adults, but few publications have been devoted to morphogenesis of the jugular veins and jugular angles in human prenatal period, and the available data are controversial and fragmented.

**Objective.** To determine topographical and anatomical features of the internal jugular veins during the third trimester of the intrauterine growth.

The study was conducted on 32 cadavers-specimens of the fetuses aged 4-10 months and 163,0 to 500,0 mm long from the vertex to the heel, by means of macro and micropreparation, radiography, vascular injections and morphometry.

The internal jugular veins extend vertically downwards from the external base of the skull to the place of joining with the subclavian veins. The superior and inferior bulbs in the internal jugular veins of the fetuses aged 4-10 months can be identified, their external diameter being different at different levels; it is only the same in the fetuses, aged 6-7 months, except the inferior sections (veins dilate). The external diameter of the right internal jugular vein in 4-months-old fetuses is  $1,8 \pm 0,3$  mm, in 6-months-old -  $2,7 \pm 0,2$  mm, 7-months-old -  $3,4 \pm 0,1$  mm, in 10 - months-old,  $4,5 \pm 0,2$  mm, the external diameter of the left internal jugular vein increases from  $1,5 \pm 0,3$  mm (4-months-old fetus) to  $2,4 \pm 0,2$  mm (6-months-old fetus) and from  $1 \pm 0,2$  mm (7-months-old fetus) to  $4,2 \pm 0,2$  mm (10-month-old fetus). In the upper part the internal jugular veins take retromandibular, pharyngeal, facial, lingual veins and rarely (4 cases out of 32), jugular venous arch. The internal jugular veins are located under the sternocleidomastoid and scapular-hyoid muscles. The muscles of subhyoid group are adjacent to the medial surface of the internal jugular vein, the right common carotid artery to the posteromedial surface, the right vagus adjoins the posterior surface, the medial edge of the anterior scalene and the right phrenic nerve are adjacent to the lateral surface. The internal jugular veins along with the subclavian ones in the lower sections of the neck form jugular venous angles. The right jugular angle rate in 4-10 months old fetuses is  $105-120^\circ$  that of the left angle is  $120-140^\circ$ , the lowest angle rates were found in the fetuses, aged 5 months. During the perinatal period of the ontogenesis some more complicated topographic and anatomic correlations with the internal jugular veins and the adjacent structures of the neck take place.

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#### **THE DEVELOPMENT OF THE LIVER IN THE PREFETAL PERIOD OF HUMAN ONTOGENESIS**

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The characteristics of the liver were studied before fetal period of human ontogenesis. 20 human cadaver prefetuses of different age groups were studied by means of histological methods with image reconstruction and morphometry.

At the beginning of the prefetal period (prefetuses 14.0 - 20.0 mm of crown-rump length (CRL)) the liver was found to increase significantly in its size. Its transverse size is already 5.0 mm.

The right and left sagittal fissures are clearly defined on the visceral surface of the liver in the 7<sup>th</sup> week prefetuses. The gallbladder is in the right anterior sagittal sulcus; umbilical vein is in the right anterior sagittal sulcus.

The development of the liver during the 8<sup>th</sup> week of prenatal development was studied on 10 series of histological sections of human prefetuses with the size from 21.0 mm to 30.0 mm CRL.

The liver continues to enlarge in its size, and its transverse dimension in the correspondent group of the prefetuses is 6.0 mm.

In this age group of prefetuses the hepatic-duodenal ligament runs from the liver gate to the top of the duodenum and reaches the head of the pancreas. In the thickness of the ligament the hepatic artery and bile ducts are located. The portal vein of the liver passes to the left from the bile duct. Then it turns slightly behind the hepatic artery.

Morphogenesis of the liver in the middle of the prefetal period (9<sup>th</sup> week of fetal development), was studied on six histologic series of the human prefetuses with the size from 31.0 to 41.0 mm CRL.

The liver occupies upper and middle floors of the abdominal cavity in prefetuses of this group, the cross body size of the liver is 3.5 mm, longitudinal body size - 7.0 mm. The hepatic artery proper is presented to the left of the common bile duct in the gate of the liver. The portal vein of the liver passes behind and slightly below the artery.

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#### **PECULARITIES OF METASTASES IN WOMEN OF CHERNIVTSI REGION WITH INVASIVE DUCTAL BREAST CARCINOMA ACCORDING TO TNM CLASSIFICATION (CATEGORY T-N)**

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In the case of invasive ductal breast carcinoma, the severity of the disease and the life prognosis is determined by the histological type of the tumour and/or occurrence of metastases. Metastases are secondary tumour changes that occur due to invasive growth and dissemination of the tumour in the patient's body. It is rather complicated cascade of processes of tumour cell separation, its penetration through the biological barriers, implantation into new tissues and the initiation of growth of a separate malignant process. In metastasis of carcinoma are found life prognosis and survival of patients worsens immediately. According to number of studies breast carcinoma occupies a leading place in the