



has been discussed in numerous studies. On the sections of the CD we would find from 3 to 14 such septa which provide important geometric shape of the CD lumen and a clearance between the wall surfaces and those of the folds. The angle between the GB and CD varies widely - from 5% to 180%.

Conclusions: 1. At the end of 4 weeks of the fetal development the cells of entodermal outgrowth of the initial intestine in the proximal hepatic diverticulum (sources of the extrahepatic bile ducts anlage) form the rudiments of the gallbladder, cystic duct and the proximal part of hepatic ducts. 2. The vascular bed of the gallbladder and cystic duct are represented by an arterial network and a chain of longitudinal arterial anastomoses that accompany their walls, by vascular plexuses in all membranes of the walls. 3. The intramural arteries of the spiral cystic duct have a circular direction, and around its smooth part they are represented by an arterial network, which continues as the arterial network of the extrahepatic bile ducts. 4. Venous plexuses are located outside of the arterial plexuses. Around the cystic duct we found topographical and anatomical differences in angioarchitectonics: in 76.2% we could detect arterial rings connecting the upper section of its own hepatic artery and the cystic artery. Around the cystic duct, unlike other segments of extrahepatic bile duct the venous network lies deeper than the arterial one. 5. At the beginning of the second trimester the cystic duct in male individuals is located the lowest skeletotopically in the fetuses with the highest and lowest coefficients of the constitutional type, whereas in female fetuses it does not depend on the constitutional type. 6. The period of intensive growth of the gallbladder and cystic duct within 4-5 weeks of development can be considered as one of the critical periods in the development of extrahepatic bile ducts.

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### **MORPHOLOGY OF PRETERM MATURING OF CHORIAL PLACENTAL TREE AGAINST IRON-DEFICIENCY ANEMIA IN 33-36 WEEKS OF GESTATION**

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The labour is considered to be preterm beginning from the full-time 22<sup>nd</sup> till full-time 36<sup>th</sup> week of gestation. The frequency of preterm labour according to various literary evidences constitutes 4-20% and it does not have a tendency to decrease. A considerable percentage of preterm labour is the main cause of maternal and fetal loss. At present the influence of iron-deficiency anemia of the gravidas upon the morphology of preterm maturing of the chorial tree is not studied, but only there are observations of an opposite condition available – chorial tree immaturity in case of iron deficiency anemia of the gravidas. At the same time, the combination of preterm maturing of the chorial tree and iron deficiency anemia of the gravidas is highly probable, as the frequency of anemia of pregnancy is rather high; it varies from 28% to 84% according to the data of the world statistics.

Objective - to find morphometric parameters of preterm maturing of the placental chorial tree in case of iron-deficiency anemia of the gravidas for range – 33-36 weeks, to conduct a comparative analysis of these parameters using various groups of comparison. The following groups of investigation were formed: 1). the main group №1 – the examination of combined iron deficiency anemia of the gravidas and preterm maturing of the chorial tree in 33-36 weeks of gestation (n=20). 2). the comparison group №2 – the examination of preterm maturing of the chorial tree without any anemia in labour in 33-36 weeks of gestation (n=18). 3). the comparison group №3 – the examination of iron deficiency anemia of the gravidas in 33-36 weeks of gestation when the structure of the chorial tree corresponds to the term of gestation (n=19). 4). the comparison group №4 – the examination without any anemia in 33-36 weeks of gestation when the structure of the chorial tree corresponds to the term of gestation (n=22). In addition, morphometric parameters of physiological pregnancy are estimated (n=21).

Histological examinations were conducted on the base of histological samples stained with hematoxylin and eosin. In every placenta in random fields of vision for 90 chorial villi were studied and classified according to the criteria, as the result a percentage ratio between various types of chorial villi was obtained. For every group of examination arithmetic mean and its error were calculated. Digital material was statistically processed by means of the bilateral odd Student criterion. The differences were considered statistically valued with  $p \leq 0.05$ .

The peculiarities of preterm maturing of the chorial tree in case of iron deficiency anemia of the gravidas in the term of gestation of 33-36 weeks are the following: in general morphometric parameters of the chorial tree do not achieve the level of physiological pregnancy, although in the gravidas without anemia they do achieve; the degree of maturity of the chorial villi is less than in case of preterm maturing of the chorial tree without anemia which is seen in the less percentage of terminal “specialized” villi, in distribution of the percentage between intermediate villi changed for the benefit of immature ones, in increased percentage of trophoblastic and villous sprouts.

**Garvasiuk O.V.**

### **MORPHOLOGY OF PRETERM MATURING OF CHORIAL PLACENTAL TREE AGAINST IRON-DEFICIENCY ANEMIA IN 29-32 WEEKS OF GESTATION**

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Disorders of the chorial placental tree formation very often underlie pathogenesis of this organ failure. The diagnostics of preterm maturing of the chorial tree is based on finding the fact of its preterm structure as compared to



the parameters of a certain gestation period, which can be calculated on the percentage of various types of chorial villi. Preterm maturing of the chorial tree is found in the materials after abortions and during preterm labour.

Objective - to find morphometric parameters of preterm maturing of the placental chorial tree in case of iron-deficiency anemia of the range – 29-32 weeks.

The following groups of investigation were formed: 1). the main group №1- the examination of combined iron-deficiency anemia and preterm maturing of the chorial tree in 29-32 weeks of gestation (n=18); 2). the comparison group №2 – the examination of preterm maturing of the chorial tree without anemia in labour in 29-32 weeks of gestation (n=19); 3). the comparison group №3 – the examination of iron-deficiency anemia in 29-32 weeks of gestation when the structure of the chorial tree corresponds to the term of gestation (n=20); 4). the comparison group №4 – the examination without any anemia in 29-32 weeks of gestation when the structure of the chorial tree corresponds to the term of gestation (n=21). In addition, morphology of physiological pregnancy are estimated (n=21).

Material and methods - histological examinations were conducted on the base of histological samples stained with hematoxylin and eosin. In every placenta in random fields of vision for 80 chorial villi were studied and classified according to the criteria, as the result a percentage ratio between various types of chorial villi was obtained. For every group of examination arithmetic mean and its error were calculated. Digital material was statistically processed by means of the bilateral odd Student criterion. The differences were considered statistically valued with  $p \leq 0,05$ .

The peculiarities of preterm maturing of the chorial tree in case of iron deficiency anemia of the gravidas in the term of gestation of 29-32 weeks are the following: in general morphometric parameters of the chorial tree do not achieve the level of physiological pregnancy. The degree of maturity of the chorial villi is less than in case of preterm maturing of the chorial tree without anemia which is seen in the less total percentage of terminal and terminal “specialized” villi, but more percentage of intermediate immature villi.

**Guzik O.V.**

#### **TO THE QUESTION OF PRENATAL MORPHOGENESIS OF THE HUMAN UTERINE CERVIX**

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Studies dealing with the embryological and fetal development of the cervix are rare and mostly refer to initial decades of the previous century. Doctors should know embryogenesis, development and variants of the cervix normal structure in order to understand morphological peculiarities of cervical diseases.

Objective of the work: to present morphofunctional characteristics of the cervix in prenatal human ontogenesis. 10 embryos and 11 pre-fetuses from 4 to 12 weeks of development, and 23 fetuses from 13 to 40 weeks of development have been investigated. The following investigational methods have been used: macroscopy, microscopy of consecutive histological and topographic-anatomical section series, conventional and thin preparations. In the 4<sup>th</sup> or 5<sup>th</sup> week of ontogenesis paramesonephric duct (Muller's) and mesonephric duct (Wolf's) were identified within urogenital blastema composition. From the 5<sup>th</sup> to 7<sup>th</sup> week of development ducts grow parallel to each other in cranial-caudal direction through the whole initial kidney depth. Later the caudal end of Muller's duct, tending downward, changes horizontal direction to vertical one, and approaches the duct on the opposite side. In the 8<sup>th</sup> week Muller's ducts invade to mesenchyme cluster, located between the rectum and urogenital sinus. Starting from the 9<sup>th</sup> week paramesonephric ducts approach each other and locate themselves medially along the midline of the embryo body, in “mesenchymal block”. Paramesonephric ducts join (10<sup>th</sup>-11<sup>th</sup> week) and gradually (11<sup>th</sup> – 12<sup>th</sup> weeks) grow in the direction of the urogenital sinus. From the 13<sup>th</sup> to 20<sup>th</sup> weeks of embryonic development the uterine cervical canal is formed, which epithelial layer counteracts with urogenital area. From the 20<sup>th</sup> to 30<sup>th</sup> week epithelial layer of the uterine-vaginal tract is presented by coelomic type of epithelium, which in the area of ectocervix counteracts with vaginal epithelium and forms «squamocolumnar junction». In the second part of the intrauterine development growth rates of the uterine body and cervix differ: at 33 weeks the length of fetal cervix is  $\frac{3}{4}$  of its total length, and by the end of pregnancy -  $\frac{2}{3}$ . From the 7<sup>th</sup> month of pregnancy intense growth of genitals, particularly cervix, starts. A detailed investigation of cervix peculiarities in the prenatal period of human development is of an important theoretic and practical significance to find the mechanisms of possible occurrence of lesions, variants and defects of development.

**Herasym L.N.**

#### **MORFOGENESIS OF THE INTERNAL JUGULAR VEINS IN THE PERINATAL PERIOD OF ONTOGENESIS**

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Population frequency of congenital pathologies in different countries, according to the WHO, is in the range 2,7-16,3%. Under present conditions, when there is a decrease in fertility and an increase in mortality, the paramount task is to decrease perinatal, neonatal and infant mortality. Scientific research in the field of perinatal anatomy, organ-specific critical periods of development and understanding the spatial correlations of organs and structures become very important.

Anatomical study of the major neurovascular bundle of the neck during the prenatal period will allow to determine morphologic aspects of the morphogenesis, will serve as a base for ascertaining different variants of its