



structure of malignant cancer among women, focuses on topical issues nowadays. Histopathologic, histochemical and immunohistochemical features of the tumor are successfully used for prognosticate occurrence of metastases.

The objective of the study was to investigate the peculiarities of metastases occurrence in women with invasive ductal breast carcinoma gland in Chernivtsi region. The distribution of cases of invasive breast carcinoma by its categories (T and N) to detect the presence or absence of metastasis in them was conducted.

Among all the cases of carcinoma those without metastasis were 40.1%, with metastasis - 59.9%. Under N category (metastasis to regional lymph nodes: N1-29%, N2 - 11.1%, N3 - 19,8%). In the group of T category in most cases T2 - 30,2% of all observations, with metastases - 57.8%, without metastases - 42.2%.

As a result of the studies it was found out that about 60% of invasive ductal carcinoma was accompanied by metastasis, among the T categories the largest is T2, that was indicative of a high risk of metastasis and was characterized by a negative of life prognosis. And in N category the majority of were found in N1, the least in N2.

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MORPHOGENESIS AND STRUCTURAL CHANGES OF THE GREAT DUODENAL PAPILLAE IN THE EARLY PERIOD OF HUMAN ONTOGENESIS

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The research was conducted using microscopy of series of histological sections of human prefetuses and plastic and graphic reconstructions. In the early prefetal period (prefetuses 15,0-40,0 mm CRL) the bile duct is found to be transformed into the intramural one which, when combined with the pancreatic duct forms hepatic ampulla. The latter is surrounded by a circular layer of mesenchymal cells, separated from the circular layer cell membranes of the intestinal wall, indicating the formation of sphincter muscle of the hepatic-pancreatic ampulla. According to our results the germ of the sphincter muscle of the ampulla appears in prefetuses 19,0-21,0 mm CRL.

At the beginning of the 8th week (prefetuses 21,0-24,0 mm CRL) due to the reduction of epithelial plug connection with the bile duct lumen of the duodenum is formed. Along with this the major duodenal papilla is formed, which looks like protrusion of the medial epithelial membrane of the bowel wall at the hepatic-pancreatic ampulla. The emergence of the greater duodenal papilla coincides in time with the formation of intestinal villi and the beginning of the secretion of bile into the lumen of the duodenum, which determines readiness for fetal amniotrophic supply.

During the 9th week myoblasts are seen among mesenchymal cells of the wall of the bile duct, which is indicative of the formation of muscle membranes. Thus, the myoblasts appearance is asynchronous in different parts of the bile duct. Mainly they are concentrated in the caudal part of the bile duct deep in the sphincter.

At the 10th week the pancreatic part of the bile duct is placed in the furrow between the head of the pancreas and the medial wall of the descending duodenum and forms a bend to the right and forward. Intramural part of the bile duct is placed vertically in the thickness of the medial wall of the descending duodenum on the verge of middle and lower thirds. In the wall of the bile duct smooth myocytes, which form separate longitudinal muscle bundles, are seen and around the intramural parts of bile duct, the pancreatic duct and hepatic-pancreatic ampulla demonstrate a continuous circular muscle layer that forms the basis of Oddi's sphincter.

By the end of prefetal period (prefetuses 70-79 mm CRL - 11-12 weeks) the bile duct reaches 2.8 mm, and topographic anatomical relationship with adjacent structures resembles definitive ones.

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THE STRUCTURE CHANGES OF THE FETUSES BUCCAL REGION SOFT TISSUES MORPHOLOGY IN THE DEVELOPMENTAL DYNAMICS

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Within the buccal region (BR) there are many anatomical structures, including the terminal part of the parotid duct, Bichat fat pad, blood and lymph vessels, nerves. The layered structure of BR soft tissues includes a skin, a subcutaneous fat cellular tissue, a face superficial fascia, a buccal fat pad, mimic muscles, a face deep fascia (parotid fascia), buccal mucosa. This region also contains a significant amount of fat, which is called buccal cellular space in the scientific literature.

To understand the causes and mechanisms of the facial congenital and acquired diseases, the current data on the ontogeny, spatial and temporal changes in the microscopic structure of the BR soft tissue are very important. An urgent task of the morphological science in this region is a comprehensive study of the BR structures topography development and formation in prenatal ontogenesis, including using new research methods, such as laser polarimetry. These methods in embryological studies are at the stage of establishing and testing of biological tissues thin sections optical and morphological properties.

In order to determine the objective criteria for normal morphogenesis of the cheeks structures in human fetuses in the dynamics of fetal development, the studies has been conducted on 25 fetuses specimens aged 5 to 10 months of fetal development (220,0-480,0 mm crownrump length) using traditional morphological (preparation, morphometry, micro- and macroscopy) and methods of biological tissues thin sections polarization microscopy (Stokes-polarimetry,



polarimetry and microscopic images phasemetry). As the objects of study optically thin (geometrical thickness $l = 15\mu\text{m}-35\mu\text{m}$, attenuation $\tau < 0.1$) layers of fetuses BR soft tissue histological sections of all ontogenesis ages have been used. From a physical point of view most of histological sections of human biological tissues are optically anisotropic non-depolarizing medium that change the value of azimuth and polarization ellipticity, and thus form polarizationally heterogeneous microscopic images.

In our study, parametric indices of polarization-nonuniform microscopic images and their comparative characteristic of the age dynamics have been determined. The comparative analysis of polarization-filtered microscopic images indicates a predominantly amorphous structure of the material of all samples, which is consistent with the features of buccal region morphological structure - the large number of fat and increase of its share in the age dynamics.

The comparative analysis of data, obtained by the phasemetry of polycrystalline substance structure, has found marked differences between statistical phases distributions in the plane of microscopic images of preparation histological sections of buccal fat pad and BR subcutaneous adipose cellule tissue in the fetuses of all ages, which are characterized by disordered amorphous structure. Chronological (5-10 months of fetal development) change dynamics of such a morphological structure manifests itself in the formation of greater fat tissue substance crystallization.

The representation of the BR soft tissue histological sections of the 7 months of fetal development (320 mm crownrump length) human fetus compared with the BR preparations of the 5 months of fetal development (245 mm crownrump length) human fetus has a slightly larger range of variation values phase, which can be associated with a higher the degree of crystallization and thus structure growth of its morphological substance structure, due to the formation of fat particles, the development of muscle fibers.

So the research of thin sections of human fetus buccal tissue regions using laser polarimetry (phasemetry of polycrystalline substance structure with the next phase wavelet analysis of microscopic images phase maps) has shown the growth of substance morphological structure in the age developmental dynamics. These data correlate with the results of traditional methods of morphological studies on the fat phase development, the formation of fat particles, muscle fibers development that collectively change the optical properties of tissues. The established pattern may be related to the fact that along with disordered fat cells larger clusters of fat cells, which are grouped mainly in landscaped clusters, are formed. In the later stages of the development a number of such crystallized clusters increases and the adipose tissue becomes more vivid crystallized properties.

The laser polarimetry methods are informative for polarizational mapping of multi-layered biological tissues in the prenatal period dynamics which can be used to assess the degree of fetal maturation and to forecast the body viability, early detection of morphological preconditions of deviations from normal development and formation of face defects.

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THE FORMATION OF PARTICULAR STRUCTURES OF THE ORAL AREAS OF HUMAN EMBRYOS

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The formation of structures in the oral area of human embryonic period of ontogenesis was studied on 18 biological human objects by means of morphological methods. Due to the rapid proliferation of the main parts of embryos 5,0-5,5 mm CRL the oral fossa is not found to be noticeable. The oral fossa is limited by frontal protuberance extension above, on the sides - by the germs of maxillary processes, and below - heart protuberance. The oral entrance is supplemented by paired germs of mandibular arch directed to the midline from behind. The latter ones are caudally connected to the germs of the maxillary processes. The floor of the oral fossa is lined with dermal ectoderm. The germs of the maxillary and mandibular processes are seen as homogeneous clusters of mesenchymal cell mass. The germs of processes of the jaws in embryos of 6,8-7,9 CRL are gradually directed to the midline, but do not merge with each other. Due to breakthrough of the oral plate the oral fossa appears to be connected to the principal intestine. The process of differentiation of jaw processes, especially their caudal parts begins. On the inner surface of mandibular lateral protuberances the germs of the tongue are seen, located between the odd median protuberance. At the end of the embryonic period mandibular processes fully merge with each other and the mandibular arch is formed. In the upper section of the primary oral cavity, the paired of the nasal cavity penetration is seen. The developmental processes in the region of the tongue germ continue.

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TOPOGRAPHIC-ANATOMICAL INTERRELATIONS OF THE SIGMOID-RECTAL SEGMENT IN 4-6-MONTH FETUSES WITH U-SHAPED SIGMOID COLON

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Congenital defects of the digestive tract development may occur in the second trimester of the intrauterine development due to the effect of various external and internal environmental factors on the body of a pregnant woman. Having analyzed literary data concerning structural-functional rebuilding of the sigmoid-rectal segment during perinatal period of human ontogenesis, we have not found a single opinion concerning this issue. Due to this facts and considering the topicality of this problem both for theoretical and practical medicine, we have conducted its careful examination.