

layer and cylindrical, with a thickness of 13-16 microns. Cell nuclei sized5-7 microns are circular or elongated and occupya predominantly apical position, although ingeneral they are placed on three levels. Aroundthe epithelium of the pharyngeal gland there is amuch higher concentration of mesenchymal cells. The thickness of the pharynx rudiment walls is onaverage identical throughout and reaches 113-122 microns.

The mucous layer is  $21-25~\mu m$ . Outside of the mucous membrane rudiment, there is a thick layer of mesenchymal tissue, which does not differ in structure from that of organs adjacent to the pharynx. The same layer of mesenchyma, which separates the posterior wall of the pharynx from the spine, becomes somewhat thinner compared to the similar layer of mesenchyma in the rudiments of 9.0 - 10.5~mm CRL. The vault of the pharynx borders with the rudiment of the skull base.

## Rusnak V.F. MORPHOGENESIS OF THE PHARYNX IN FETAL PERIOD IN HUMAN ONTOGENESIS

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The position of an organ relative to other organs (syntopy) and the development of organs in different age periods attract special attention from modern embryologists, anatomists and clinicians. Scientists always face the problem of insufficient scientific research to study the development of organs in health and disease. An urgent task is the in-depth study of the topography of the pharynx for professionals of many branches of medicine. Syntopy correlation and mechanisms of ontogenetic processes are methods of understanding the foundations of this organ, setting, topography, structure, and to display defects in physical development. Undoubtedly, the display of various anomalies that occur in clinical practice can be explained only by a clear understanding of the process of embryonic origin and interaction of certain organs and structures. This requires a thorough study of normal and abnormal development of the fetus for further development of algorithms and antenatal health protection.

The study was conducted on cadavers of 26 fetuses using histology, macro-and microscopic techniques, plastic and graphic reconstruction and morphometry.

At the end of the prefetus period, the pharynx has three clearly defined parts which are characterized in definite states. The boundaries between the parts of the organ are: the level of the soft palate - caudal border of the nasal pharynx, the level of the entrance to the larynx (the top edge of the epiglottis) - caudal border of the mouth, the level of the lower edge of the cartilage of the larynx cricoid cartilage - caudal border of the laryngeal and pharyngealesophageal transition. At macroscopic examination of the fetus (82.0 - 93.0 mm parietal-coccygeal length PCL) the longitudinal size of the pharynx is from 5.05 to 5, 30 mm. The sizes of the craniocaudal pieces are: nose - from 0.59 to 0, 60 mm mouth - from 0.83 to 0.84 mm, laryngeal - from 3.44 to 3.60 mm. At the end of the fifth month of fetal development in fetuses, 175 - 185 mm PCL craniocaudal throat size is 5.84 - 5.97 mm. This includes the bow - from 0.70 to 0.72 mm, mouth - from 1.10 to 1, 14 mm, laryngeal - from 4.02 to 4.11 mm. The main dimensions of the structures of the fetuses sixth - seventh months (186.0 - 270.0 mm PCL) are: craniocaudal size is from 8.07 to 8.20 mm, the length of the nasal pharynx - from 1.10 to 1.14 mm, oral - from 1.40 to 1.45 mm, laryngeal - from 5.72 to 5.80 mm. The transverse size of the pharynx in the cranial department reaches 8.90 - 9.05 mm in the caudal parts of 3.14 - 3.30 mm. For eight to ten months of fetal development (fetuses 271.0 - 378.0 mm PCL) longitudinal size of the pharynx increases from 11,20 to 11.62 mm. In the late fetal period (fetuses 378.0 mm PCL), the craniocaudal throat size is 22.93 to 23.45 mm - including the length of the bow (3.92 to 4.06 mm), mouth - (6.09 to 6.26 mm), laryngeal - (12.92 to 13.13 mm). The transverse size of the pharvnx in the cranial department is from 10.71 to 10.92 mm, and in the caudal section and from 4.63 to 4.83 mm.

During the 12 - 16th week of fetal development we observed the definitive form of the pharynx. Simultaneously with the overall formation of the pharynx we observed the craniocaudal gradient of development. Laying and pharyngeal tonsils occurs almost simultaneously at the end of the 13th week, while the tube tonsils occur during the 15-16th, and week tonsil development finishes at the end of the 19th week. During fetal development, skeletopy of the pharynx is closely connected with the nasal cavity and the mouth, palate, larynx, esophagus.

## Банул Б.Ю. РОЗВИТОК ПАРАМЕЗОНЕФРАЛЬНИХ ПРОТОК ТА ЇХ ПОХІДНИХ НА ПОЧАТКУ ПЕРЕДПЛОДОВОГО ПЕРІОДУ ОНТОГЕНЕЗУ ЛЮДИНИ.

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У передплодів 14,0-14,5 мм ТКД внаслідок нерівномірної проліферації целомічного епітелію просвіт парамезонефричних проток поблизу сечостатевої пазухи майже відсутній, що є стадією фізіологічної атрезії. Діаметр просвіту парамезонефричних проток на рівні верхньої третини первинних нирок досягає 4±0,1 мкм, каудальніше зазначеного рівня — 2±0,05 мкм. Затримка або відсутність реканалізації проток може спричинити недорозвиток чи їх відсутність, що варто вважати одним із критичних періодів розвитку цих структур. Статеві залози і первинні нирки являють собою єдиний комплекс видовжено овальної форми, в якому первинна нирка займає бічне положення. Внаслідок збільшення розмірів статевих залоз між ними та первинними нирками утворюються поздовжні заглибини у вигляді бічних та присередніх борозен. Бічні борозни глибші за