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THE PARTICULAR STRUCTURES FORMATION OF HUMAN EMBRYOS ORAL AREAS

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The structure formation in the oral area of human embryonic period of ontogenesis was studied on the basis of 18 biological human objects with the help of morphological methods. It is established that due to the rapid proliferation of the main parts of embryos 5,0-5,5 mm CRL the oral fossa is noticeable. The oral fossa is limited by frontal swallowing above, on the sides - by the germs of maxillary processes, and below - heart swallow. The oral entrance is supplemented by paired germs of mandibular arch directed to the midline from behind. The last iscaudally 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 jaws in embryos of 6,8-7,9 CRL gradually direct the midline but do not merge with each other. Due to the breakthrough of the oral plate, the oral fossa appears connected to the principal intestine. The process of differentiation of jaws' processes, especially their caudal parts starts. On the inner surface of mandibular lateral protuberances, the germs of the tongue are seen, which is 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 pared of the nasal cavity burst. The developmental processes in the region of tongue germ continue.

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THE INFLUENCE OF THE FORMATION OF PALATE ON THE DEVELOPMENT OF CRANIOFACIAL COMPLEX

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Structures of the craniofacial complex, such as the mandible, palate, temporomandibular joint, and dentition, each offer valuable paradigms for studying development, structure, and functions. Craniofacial development is clinically important since craniofacial anomalies are amongst the most common congenital anomalies found in humans.

The specimen of 18 embryos and 16 pre-fetus were selected to be the materials of the research. Following investigational methods have been used: macroscopy, microscopy of consecutive histological sections series, conventional and thin preparations

During early development (4 weeks), the primitive oral cavity is bounded by five facial swellings, produced by proliferating zones of mesenchyme lying beneath the surface ectoderm - the frontonasal, mandibular and maxillary processes. In a 5-week-old embryo, localized thickenings of ectoderm give rise to the nasal and lens placodes. These placodes will form the olfactory epithelium and the lenses of the eyes respectively. The nasal placodes sink into the underlying mesenchyme, forming two blind-ended nasal pits (the primitive nasal cavities). In the 6-week-old embryo, the two mandibular processes fuse in the midline to form the tissues of the lower jaw. The mandibular processes and maxillary processes meet at the angle of the mouth, thus defining its outline. he maxillary processes subsequently "replace" the medial nasal processes to meet in the midline and thus contribute all the tissue for the upper lip. Fusion of the facial processes ultimately produces the region known as the 'intermaxillary segment'. It is from this area that the primary palate will develop. The definitive palate (or secondary palate) appears in the human fetus between the sixth and eighth weeks of intrauterine life. Fusion of the palatal processes is complete by the twelfth week of development. Behind the secondary nasal septum, the palatal shelves fuse to form the soft palate and uvula. Once fusion is complete, the hard palate ossifies intramembranously from four centres of ossification, one in each developing maxilla and one in each developing palatine bone: a) the maxillary ossification centre lies above the developing deciduous canine tooth germ and appears in the eighth week of development b) the palatine centres of ossification are situated in the region forming the future perpendicular plate and appear in the eighth week of development.

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MACROMICROSCOPIC PECULIARITIES OF THE SPHINCTER APPARATUS OF THE SIGMOIDORECTAL SEGMENT IN NEWBORNS

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The development of new technologies in colonic surgery requires the study of morphological features of the sphincter apparatus of the sigmoid-rectal segment in newborns, since postoperative complications are still associated with disturbance of the closure or evacuation function of the sphincter structures.

The aim of the research was to determine the morphological features and structural components of the sphincter apparatus of the sigmoid-rectal segment in newborns.