#### МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ «БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



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of knowledge in each class on the one hand, and on the other hand – the development of practical skills, this in some way restricts the development of forensic expert thinking in the students.

Current control is not only testing of the level of mastering of the material in the class, it is also the continuation of training, repetition of the main issues of the topic, systematization of knowledge and skills, and also their consolidation.

Control by help of situational tasks is designed to sum up the mastering of each section of the class, to sum up the students' knowledge, to give them opportunity to systematize their ideas about mechanisms of death and description of the victim's body, to allow them to make adjustments to the understanding of the laws of the functioning of the organism as a whole.

Thus, the partial role of the forensic expert thinking in situational problems solving is very significant, and its significance is not limited only to controlling current training on a topic, but is an intermediate training activity in the training system.

Thus, clinical situational tasks can be used not only for controlling of the knowledge, but also for the formation of the students' forensic expert thinking.

## Popelyuk O.-M.V. EMBRYONIC FEATURES OF THE HARD PALATE DEVELOPMENT AND ITS CLINICAL RELEVANCE

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Over the past decade, the proportion of birth defects has increased significantly and cause perinatal and neonatal diseases and mortality. A modern clinics require an accurate data on individual anatomical variability in the prenatal period. Cleft lip and/or cleft palate are one of the most common visible congenital deformities of the face. We have aimed to explore the sources, terms and positions of the hard palate origin, study the patterns and features of their shape and topography formation during the development and to identify periods of rapid and slow growth as well as critical periods.

We have studied 15 embryos and 15 fetuses from the museum of Mykola Turkevich human anatomy department BSMU for this purpose, as well as series of sequential histological and topographic anatomical sections with the adequate methods such as: literature review, case history's study, macroscopy, microscopy of series of sequential histological and topographic anatomical sections were used.

Scrutinizing the available information it was detected that, at the end of the 4<sup>th</sup> week, facial prominences appear and consist primarily of neural crest-derived mesenchyme and are formed mainly by the first pair of pharyngeal arches.

The formation of the future oral cavity begins in embryos 4,5 mm of crown-rump length (CRL) with the formation of an oral fossa. During the following 2 weeks, the maxillary prominences continue to increase in size. Simultaneously, they grow in a medial direction, thereby compressing the medial nasal prominences toward the midline. Subsequently, the cleft between the medial nasal prominence and the maxillary prominence is lost, and the two fuse. As a result of medial growth of the maxillary prominences, the two medial nasal prominences merge not only at the surface but also at a deeper level. The structure formed by the two merged prominences is known as the intermaxillary segment. It is composed of a labial component, which forms the philtrum of the upper lip; an upper jaw component, which carries the four incisor teeth; and a palatal component, which forms the triangular primary palate. Cranially, the intermaxillary segment is continuous with the rostral portion of the nasal septum, which is formed by the frontal prominence.

Hence, the upper lip is formed by the two medial nasal prominences and the two maxillary prominences. The lateral nasal prominences do not participate in formation of the upper lip. The lower lip and jaw are formed from the mandibular prominences that merge across the midline. At the end of the embryonic development period a combination of the primary oral cavity with the



nasal cavity is seen. The final separation of the oral cavity from the nasal cavity ends within the prefetal period of ontogenesis.

Taking into consideration that environmental factors are among the main cleft palate formation causes, the major issues in prevention of cleft palates are: public education about vaccination and possible environmental and genetic dangers to children, increased access to prenatal care for mothers, efforts to decrease consanguineous marriages.

# Popovych A.I. PECULIARITIES OF PLACENTA HETEROMORPHISM WITH ITS CALCINOSIS, METHOD TO IDENTIFY THE BORDERS BETWEEN PLACENTAL CHORIAL TREE ZONES

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The objective of the study: to improve the method of border identification between the placental chorial tree zones, to investigate vertical heteromorphism of the placenta in its calcification.

84 placentae with calcinosis in combination with iron deficiency anemia in pregnancy (I-II degree of severity) were studied. To determine the vertical heteromorphism, the method of staining of histological sections with hematoxylin with soft eosin staining (for the contrast of deposits) was used. The calcium nature of deposits was evidenced by serial sections stained by histochemical methods on calcium with alizarin red. Specific gravity of the intervillous space was determined by the planimetric method.

Pathological calcification of the placenta is one of the criteria for placental dysfunction, which causes disorders of intrauterine fetal development during pregnancy. Therefore, determining the peculiarities of calcification is important for the pathoanatomical diagnostics of various forms of placental dysfunction. The placental chorionic tree was decided to be divided into three zones. Histological sections were made from the placental tissue, covering the chorionic tree along the entire distance from the choral to the basal plate. Than two borders of zone A were defined – the first border was the inner surface of the choral plate, and the second border was the region where the specific gravity of the intervillous space was reduced to 15%. After that two borders of zone B were defined - the first border was the area where the proportion of intervillous space was reduced to 15%, and the second border was the beginning of cellular columns at the placental septa. Finally, the two borders of zone C were defined - the first border was the beginning of cellular columns at the placental septa, and the second border was the surface of the basal plate.

Calcium deposits were observed in the placenta irregularly, particularly, the highest concentration of calcium deposits and their largest sizes were observed closer to the basal plate (zone C) or in the basal plate itself, the concentration of calcifications and their characteristics differed from calcifications under the basal or choral plates.

Thus, placental calcification with iron deficiency and anemia of pregnancy was much more commonly observed in zone C, which may be indicative of deeper disorders in functioning of the placenta.

### Proniaiev D.V. OVARIAN CHARACTERISTICS IN THE FETAL PERIOD

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Defects of the urinary system take the 3rd place by their occurrence including 6% of developmental defects of the female reproductive organs. Therefore modern studies in the field of perinatal anatomy are of a special importance.