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Histogenesis of human fetal testis

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Aims and objectives: The testes are paired male organ comprises unique functions in the body. It is important to know the development and histogenesis of human fetal testis.

The aim was to study the occurrence of various cell populations like germs cells, leydig cells, sertoli cells and peritubular myoid cells. The measurement of thickness of tunica albuginea was also noted.

Material and methods: The study was conducted on 50 male fetuses of varying gestational age (12–28 weeks). All fetuses were dissected and testes were collected fresh, preserved in 10% formal saline. Testes were sectioned and stained for light microscopy by Haematoxylin and Eosin, Periodic Acid Schiff's and Masson's trichrome. Four groups were made according to the gestational age.

Results: Group A (12–16) showed very thin layer of tunica albuginea, testicular cords mainly at periphery and mesenchymal tissue centrally. Group B (16–20) showed considerably increased in thickness of tunica albuginea and prominent leydig cells. Group C (20–24) showed thickened tunica albuginea and lobulation in between the seminiferous tubules. Group D (24–28) showed prominent seminiferous tubules than leydig cells.

Conclusion: The testes showed prominent seminiferous tubules in Group D. whereas prominent leydig cells in Group B as well as Group C.

Conflicts of interest

The authors have none to declare.

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A study on lip prints

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Aims and objectives: Identification plays a major role in any crime investigation. The pattern of wrinkles on the lips has individual characteristics like finger prints. Cheiloscopy is a forensic investigation technique that deals with identification of an individual based on lip traces. In the past decade lip print studies attracted the attention of many scientists as a new tool for human identification. The aim was to study the uniqueness of the lip print patterns.

Material and methods: The study was conducted on 100 randomly selected undergraduate students. The lip print of each subject was obtained and pattern was analyzed according to Suzuki and Tsuchihashi classification.

Results: The study showed that Type II (branched) lip pattern to be most prominent.

Conclusion: The study confirmed the distinctiveness of cheiloscopy. It can be used as an additional tool for identification and sex determination. Research studies and information regarding the use of lip prints as evidence in personal identification and criminal investigation in forensic dentistry are very scanty. Studying in depth and establishing further facts in lip prints will certainly help as useful evidence in forensic dentistry.

Conflicts of interest

The author has none to declare.

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A study on hard palate and high arched palate: A morphometric study with associated traits

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Aims and objectives: The integrity of the hard palate is crucial in the acquisition of spoken language and healthy development of facial structures and is hypothesized that the hard palate passively influences tongue kinematics. Howell et al (2002) has assessed the palatal height in children. Gopalanbhagyalakshmi et al (2007) worked on metric analysis of the hard palate in children with Down's syndrome.

Material and methods: The patients attending Government Dental Collge Hospital, Vijayawada hard palate was examined. 60 cases were studied in the age group of 15–18 years i.e. 30 patients with normal hard palate and 30 patients with high arched palate were compared and evaluated using specific indices. Impressions of hard palate were taken through the prepared cast. From the prepared cast morphometry was undertaken on various parameters and also observed the associated traits.

Results: As per study in high arched palate cases, hard palate was narrow, constricted and relatively higher. Crowding of incisors and canines was present in 7 cases. Malocclusion and malalignment was noted in 4 cases. 2nd premolar was absent in 2 cases. Spacing of teeth was seen in 2 cases. Microdontia was found to be present in 2 cases. Other parameters like forehead, ears, nasal bridge, neck, growth of mandible, muscle tone were observed normally. Cephalic index was studied and found low in high arched palate cases.

Conclusion: Average linear width, average antero-posterior length, average palatal arch length was decreased but average palatal height, average curvilinear width, palatal index and palatal height index were increased when compared to normal morphometric analysis of similar aged candidates and the results were found to be statistically significant.

Conflicts of interest

The authors have none to declare.

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Quantitative analysis of posterior cranial fossa and foramen magnum in north Indian population

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Aims and objectives: The range of quantitative variations in the dimensions of posterior cranial fossa (PCF) and foramen *magnum* (FM) in dry skulls and CT scans of North Indian population is important for neurosurgeons, forensic experts and anthropologists because according to earlier studies, there exists difference in the crania of various racial, geographic and ethnic populations. Hence,