

of symmetric types was 75.27% (with predominance of the bilateral adult type). Incidence of asymmetric types were: adult-transitory — 6.18%, fetal-transitory — 1.35% and adult-fetal — 17.2%. The most of the arterial variations were left sided and excess artery (a. communicans intermedia*) in the posterior part of the CAC was associated with the fetal type of the CAC.

Conclusions. Investigation proved domination of symmetrical types of the posterior part of the CAC configuration, independent of age, gender or cause of death.

THE METHOD OF FORENSIC FACIAL RECONSTRUCTIONS

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Key words: facial reconstruction, facial anatomy, skull, muscles

Aim. Forensic facial reconstruction is the anatomical method of recreating the face of an individual based on their skull. The forensic experts can study the skull to build a biological profile of a person.

Material and Methods. The basic knowledge and expertise are needed in the facial reconstruction process. This includes the muscle groups and the location and tissue depth of each of these muscles. Before explore the muscles to be assembled, the experts need to prepare the skull. The skull is levelled to ensure it is parallel to the ground by placing the 'Frankfurt plane' and attach a series of osteometric markers to the skull that can act as an indication of the depth of each of the muscles. The muscles are: Occipitofrontalis, Temporalis, Buccinator, Masseter, Mentalis, Depressor labii inferioris, Orbicularis Oris, Levator Anguli Oris, Levator Labii Superioris, Depressor Anguli Oris, Levator Labii Superioris Alaeque Nasi, Zygomatic Major and Minor, Orbicularis Oculi and Risorius.

Results and Discussion. Forensic experts refer to facial reconstruction as a «tool for recognition» rather than accurate identification process. Many features of facial morphology can be determined using scientific methods. However, some features, such as the lips, eyes, and ears, require a degree of artistic interpretation. Also, lifestyle and external factors can influence the appearance in idiosyncratic ways. For example, facial ageing can be accelerated by cigarette smoking, sun damage or weight loss.

Conclusions. Forensic facial reconstruction is a powerful tool that significantly enhances the chances of identification. The knowledge of facial anatomy is vital to be able to reconstruct a face from a skull.

IMAGING OF THE FIRST RIBS: VARIANT ANATOMY, PATHOLOGY, CLINICAL VALUE

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Key words: first rib, x-ray, chest, variant anatomy

Aim. To study the features of the first ribs during digital chest X-ray screening, taking into account variant anatomy and anomalies in timely recognition and differential diagnosis of tuberculous and oncological pathologies at the level of the first sternocostal segment of the upper aperture of the thorax.

Material and Methods. imaging of the first ribs of patients undergoing digital chest X-ray screening, 14 344 women and 8949 men aged 16 to 93 years (mean age 62.5±3.4 years) in Kursk during 2016–2017.

Results and Discussion. We didn't reveal any racial-ethnic differences in results of the primary analysis with X-ray morphometry of the first ribs. In the randomized groups we noted sexual and age-related dimorphism of the size and structure of the first ribs, predominantly asymmetric ossification of the cartilages often mimic the focus of tuberculosis and hides the lung tumor node, leading to a late misdiagnosis.

Asymmetric synostosis and hypo- and aplasia dominated the spectrum of anomalies of the first ribs. The primary pathology of the first ribs is represented by dystrophic changes in the posterior segments and stress fractures in the middle segments.

Conclusions. Unified methodology for interpreting digital chest X-ray images, taking into account the features of the first ribs significantly improves screening in early detection of tuberculosis and lung cancer.

AN ANATOMICAL STUDY OF THE COURSE OF LUMBAR PLEXUS NERVES PASSING AT LEVEL OF THE QUADRATUS LUMBORUM BLOCK

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Key words: lumbar plexus, anatomical study, block

Background. The quadratus lumborum block (QLB) is an often-used regional anaesthetic block technique at level of L3 but it remains unclear which nerves of the lumbar plexus are reached.

Aim. Therefore, the topography and course of nerves (subcostal nerve, SCN; iliohypogastric nerve, IHN; ilioinguinal nerve, IIN) passing ventral

to the quadratus lumborum (QL) at level of L3 were investigated.

Material and Methods. 60 cadavers (120 sides), embalmed with Thiel's method, were investigated in supine position. The nerves ventral to the QL were identified and marked with head-coloured pins and dissected carefully to most distal point as possible to determine the nerve according to their innervation area. Results were documented and compared to the nerve courses described in literature.

Results and Discussion. In total, 92 sides were assessable. In 51 cases, branches of the IHN accompanied the SCN as well as the IIN. The IIN and parts of the IHN crossed the QL-block level at L3. The topography of the SCN, IHN and IIN according to literature (entire IHN and IIN emerge together as a trunk), was found in 5 cases only. In 25 cases, the SCN, IHN and IIN crossed the QL separately, solely the IIN at level of L3.

Conclusions. The IIN is the nerve, which will be reached at L3 level for the QLB. Only parts of the IHN will be reached, the SCN is much more cranial.

VARIABILITY OF SUBMENTAL AND SUBLINGUAL ARTERIES IN THE SUBLINGUAL SPACE AND RELATIVE HAEMORRHAGE RISK IN ORAL SURGERY

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Key words: submental artery, sublingual artery, sublingual space, variation, oral surgery

Aim. This study aimed to demonstrate the anatomical variations of the submental and sublingual arteries (SA and SLA) in the sublingual space. This region is subjected to various surgical procedures, such as implant placement and tori mandibularis removal, which rarely may lead to extensive haemorrhage.

Material and Methods. A Medline (PubMed) and Science Direct literature search was made regarding the SA and SLA variants along with the severe bleeding complications in oral surgery published in English up until December 2017. Inclusion criteria: cadaveric and clinical studies. Exclusion criteria: patients receiving anticoagulation treatment.

Results and Discussion. The SA is the largest of the four cervical branches arising from the facial

artery (FA). However, a distribution from the external carotid artery has also been reported. SA is mainly originated superficially to the submandibular gland or between the superior border of the gland and the body of the mandible. The SLA is given off the lingual artery, the FA and the SA in the anterior border of the hyoglossus muscle. The sublingual space can be supplied by seven different arterial branching patterns. The latter are formed either independently from the SA and the SLA, or their common contribution. The anterior mandible has the largest bleeding susceptibility in the canine area mainly due to lingual cortical plate perforation.

Conclusions. The present study provides precise data on the course of the SA and the SLA in the sublingual space, which will be of clinical importance during oral surgery of the anterior mandible and especially in implant placement.

RETROSPECTIVE EVALUATION OF SOFT TISSUE THICKNESS OF THE TOPOGRAPHIC POINTS IN ADULT POPULATION BY RADIOLOGICAL METHODS

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Key words: facial soft tissue thicknesses, skeletal classes

Aim. This study was carried out to determine facial soft tissue thickness (FSTT) of adults according to skeletal class and to detect whether there is a statistical significance between groups.

Material and Methods. The facial soft tissue thickness was measured both manually and digitally considering gender and age groups. The difference between the skeletal classes was compared after the obtained data were classified according to the skeletal classes.

Results and Discussion. In our study, FSTT values of the males were found to be greater than those of the females. There was no significant difference in tissue thickness between the two sexes in glabella and nasion regions. In our study the values of FSTT were examined according to skeletal classes. In the skeletal class 3 group, the values of FSTT in the pogonion area were statistically lower than class 1 and 2 skeletal groups. In women with class 2 jaw structure, FSTT in the pogonion region was found to be significantly greater than those of Class 1 and 3 females. Also, men with class 2 jaw structure had significantly higher FSTT values in the labrale inferior region than those of class 1 and class 3 males.

Conclusions. The FSTT can be affected by various factors such as skeletal class, age, bone structure, race and symmetry of the face.