SURGICAL 3D ANATOMY OF TRANSCONDYLAR ACCESS IN THE SURGICAL TREATMENT OF BRAIN TUMORS

Syfianov A. A. [1], *Ramiro López Elizalde* [2, 3]

[1] Department of Neurosurgery, Sechenov First Moscow State Medical University; [2] Federal Center of Neurosurgery of the Ministry of Health of the Russia, Tyumen; [3] Hospital Civil de Guadalajara Juan I. Menchaca, Guadalajara, JAL, Mexico
sufianov@gmail.com

Key words: *access, transcondylar, tumor, brain, anatomy*

Aim. Improvement of the results of surgical treatment of tumors of craniovertebral transition using transcondylar access.

Material and Methods. An anatomical study of surgical approaches of cadaveric material with silicone filling of arteries and veins was done Clinical cases are represented by surgical treatment of tumors of the craniovertebral transition in 23 patients using this access.

Results and Discussion. The results of a study of the surgical anatomy of transcondylar access are presented. It is shown that for adequate access a transposition of the vertebral artery is necessary. Based on the study, patients undergoing transcondylar access with transposition of the vertebral artery and removal of the jugular tubercle were performed in a seated or recumbent position, which allowed for the radical removal of tumors without neurological deficits.

Conclusions. Transcondylar access with transposition of the vertebral artery is an alternative method of surgical treatment of ventral craniovertebral tumors.

GLOMUS APPARATUS IN THE HUMAN PALATAL MUCOSA

Székely Andrea D.

Department of Anatomy, Histology and Embryology, Semmelweis University, Budapest, Hungary
szekely.andrea@med.semmelweis-univ.hu

Key words: *glomus apparatus, palatal mucosal, human cadaver*

Introduction. Precapillary arteriovenous shunts, or Sucquet—Hoyer canals, of the skin play a significant role in thermoregulation. Glomus bodies are frequently found in the reticular layer of the dermis within the fingers, toes, or the external ear. Although less frequently mentioned, similar glomeral apparatuses, composed of endothelium lined lumina surrounded by «epitheloid» cells and a thick connective tissue capsule, also are apparent in the palatal mucoperiosteal tissue.

Material and Methods. Palatal mucosal blocks were harvested from 10 formadehyde fixed human cadaver heads and 15 micrometer paraffin sections were stained with haematoxylin eosin or AZAN. The basement membrane was visualized by periodic acid Schiff (PAS) reagent. For immunocytochemistry parallel sections were reacted against vimentin and tyrosine hydroxylase.

Results. The subepithelial connective tissue of the hard palate contains a peculiar course of vascular network deriving from the descending palatine arteries. Small precapillary arterioles, giving rise to the arteriovenous shunts and surrounded by a tyrosine hydroxylase reactive neural plexus are embedded in a dense connective tissue network intermingling with seromucous palatal glands. The endothelial lining of the glomera is separated from the «epitheloid» cell mass by a PAS reactive basement membrane. Most of the «epitheloid» cells exhibit vimentin positivity thus suggesting a mesenchymal/pericyte origin.

Glomus bodies are obligatory components of the deeper dermal layer of skin, however, they are mostly discussed with relevance to forming solitary or multiple benign tumors.

Conclusions. The oral representation of glomeral bodies is very rarely taken into account and only in association with inflammatory diseases or benign masses. However, these complex entities may act not only as thermoregulatory but also as mechanical schock absorbing units of the lining of the oral cavity proper.

TYPES OF THE POSTERIOR PART OF THE CEREBRAL ARTERIAL CIRCLE AND ASSOCIATED ARTERIAL VARIATIONS IN HUMAN ADULT CADAVERS

Trandafilović M. [1]*, *Vlajković S.* [1], *Pavlović M.* [1], *Milić M.* [2]

[1] Department of Anatomy, Faculty of Medicine, University of Niš, Serbia; [2] Institute for Forensic Medicine, Niš, Serbia
* mitra018@yahoo.com

Key words: *human cadaver, base of the brain, cerebral arterial circle — posterior part, types*

Background. There is a high incidence of variations of the posterior part of the cerebral arterial circle (CAC), but there is an insufficient data about types of the posterior part of the CAC in adult period or its association with specific arterial variations.

Aim. This morphological study had as the aim to add new facts about angioarchitecture of the CAC.

Material and Methods. Classification of the posterior part of the CAC into types and subtypes, by already formed types from literature, was performed on 388 human adult brains during the forensic autopsies.

Results and Discussion. Incidences of transitory type was 4.9%; fetal — 14.94%; adult — 79.97% without statistical significance by side. Incidence