Conclusions. The results of our anatomic study indicate that our novel US-guided minimally invasive surgical approach, for the release of the flexor retinaculum, might be an effective, safe, accurate and quick decompression technique treating patients with a PTTS.

EFFECT OF TOPICAL APPLICATION OF PLATELET-RICH BLOOD PLASMA AND HYDROIMPULSIVE SANATION IN THE TREATMENT OF SKIN WOUNDS ON THE REACTION OF SENSORY NEURONS

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Key words: *blood plasma, skin, application, sensory neurons*

Aim, Material and Methods. In an experiment on 300 white male rats evaluated the reactions of neurons of the dorsal root ganglions innervating the regeneration zone of the skin wound of the thigh, with its natural healing and in the case of infection with Staphilococcus aureus sp., using isolated and combined use of platelet-rich blood plasma (PRP) and hydroimpulsive sanation of the wound defect (HIS).

Results and Discussion. The appearance of the neuron groups with various features of morphofunctional changes is noted: reversible by dystrophic and compensatory reactions and irreversible by degenerative changes. The introduction, after the HIS treatment, of PRP in the wound defect resulted in increasing the regenerative effects in the neurons already from the 7th day of the experiment and a significant reduction in cell destruction. The introduction of PRP without pretreatment of the wound defect led to a delay in regeneration and increased the number of destructively altered neurons even in comparison with the spontaneous course of the wound process. Using the multivariate correlation analysis evaluated the relationship between indicators of protein-synthesis activity (optical density of protein and RNA), basic morphometric characteristics (area and nuclear-cytoplasmic index) and condition of perineuronal glial environment.

Conclusions. The combined use of HIS and PRP had the most harmonious effect and a high positive correlation, which can be regarded as the most adequate combination of methods of regional influence in the purulent form of wound healing process.

NEUROIMAGING OF THE STYLOHYOID AREA AS A DIAGNOSTIC TOOL IN CLINICAL PRACTICE

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Key words: *stylohyoid area, pain, diagnostic, face*

Aim. definition of clinical and anatomical patterns in the diagnosis of painful face syndrome

Material and Methods. In the neurology clinic, 20 patients of both sexes aged 35–63 years with suspicion of neuralgia of the 2nd and 3rd branches of the trigeminal nerve were examined. All patients underwent a clinical neurological and dental examination. In anamnesis, all patients had primary headaches in the form of migraine (simple form n=8) and tension headache episodic form involving pericranial muscles (n=12). Against the background of changes in the dental system (extraction, prosthetics), a change in the course of the underlying disease towards the deterioration (transformation with chronization) was detected with a decrease in the effectiveness of the usual drug therapy. With the diagnostic purpose, CT examination of the craniofacial region was carried out by patients, using the T-scan system, occlusal disorders were determined in norm and with forced compression of the jaws.

Results and Discussion. In 78% of cases, the relationship between occlusive disorders and imitation of pain manifestations of a neuralgic nature was revealed. In this case, according to CT, in 5 patients, according to CT, elongation of the styloid process (SP) was revealed; 2 — anomaly of ossification with fragmentary inclusions of cartilage; in 1 patient — with pathological fracture of SP with displacement.

Conclusions. Conducting CT with a diagnostic purpose in patients with persistent neuralgic pain symptoms contributes to the possible identification of the stylohyoid syndrome. With the addition of secondary HA with trigeminal neuralgia to the course of the underlying disease, it is also necessary to perform neuroimaging of the styloid subclavian area to detect this syndrome.

PIROGOV'S «ICE ANATOMY» IN SURGICAL ANATOMY INJURIES RESEARCH OF MINE AND BLAST OF LIMBS

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Key words: *ice anatomy, surgical anatomy, bomb, Pirogov*

Of the many methods that N. I. Pirogov perfected in creating the atlas «Topographic anatomy of cuts

of a frozen human body» (1853–1859), namely: sawing in 3 mutually perpendicular planes, layerwise cleavage of frozen tissue or selectively thawing them in the necessary areas, the formation of windows with the abandonment of the most important anatomical landmarks, etc., undoubtedly, the most informative was the way of layer cuts. The technology of sawing developed by the great surgeon and anatomist with the subsequent accurate transfer of two-dimensional information from preparations to paper and then to lithographic stones became the prototype of modern methods of radiation visualization of anatomical structures by CT and MRI methods with software digital reconstruction of images in 2–4 D measurements. Pirogov's technology was brilliantly used by A. N. Maksimenkov during the Great Patriotic War to study the surgical anatomy of wound canals in gunshot wounds of extremities. This technology was further developed in the works of E. A. Dyskin, L. N. Aleksandrova, L. B. Ozeretskovsky when studying the problems of terminal wound ballistics of bullet and fragmentation wounds. Over the past 30 years, we have successfully used the method of sawing a frozen body in the study of amputated limb segments in the wounded that have been blown up on anti-personnel mines, and also after modeling of mine-blast injuries on anatomical objects and experimental animals. Due to the complex research performed, it was found out that the case architectonics of the limb segments for the distribution of reversible and irreversible disorders in tissues plays no less important role than the distance from the center of the explosion. The most severe and extended injuries are concentrated in the deep muscles along the bones, fascial septa and the interosseous membrane, as well as loose paravasal and paraneural tissues. The data obtained make it possible to develop a program for a full-fledged audit of injured tissues in the affected, to justify the tasks of surgical treatment of wounds, and, if necessary, the level and method of limb amputation.

MORPHOMETRIC CHARACTERISTICS OF ARTERIES OF AGED PEOPLE BRAIN

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Key words: *brain arteries, outer diameter, wall thickness*

Aim. Research — to reveal regularities of dimensional characteristics of arteries of the brain of people at advanced age.

Material and Methods. Investigated samples of anterior cerebral artery (ACA), middle cerebral artery (MCA), posterior cerebral artery (PCA), posterior communicating artery (PComA), basilar artery (BA) and intracranial parts of the vertebral arteries (VA) withdrawn at autopsy of 21 corpses of people of advanced age. Death hasn't been connected with sharp vascular pathology of a brain. Studied the outer diameter, wall thickness, diameter of a gleam of arteries. For assessment of the importance of distinctions used Student's t-criterion for independent selections (distribution normal).

Results and Discussion. The sizes of arteries of a brain at adults of advanced age have no significant bilateral and sexual distinctions and are characterized by average variability (the coefficient of variability 11–25%). Averages the outer diameter, thickness of a wall and diameter of a gleam of the studied arteries (mm): ACA — 2.28±0.05, 0.27±0.01 and 1.74±0.05; MCA — 2.99±0.05, 0.31±0.01 and 2.37±0.05; PCA — 1.36±0.04, 0.24±0.01 and 0.87±0.04; PComA — 2.34±0.06, 0.27±0.01 and 1.79±0.06; BA — 3.45±0.13, 0.41±0.03 and 2.65±0.11; VA — 3.02±0.11, 0.33±0.01 and 2.36±0.09. Differences between the parameters of arteries of the same name are statistically not significant: for the outer diameter of MCA and VA; for thickness of a wall of ACA and PCA, MCA and VA, ACA and PComA, PComA and PCA; for diameter of a gleam of MCA and VAS, VA and BA.

ANATOMICAL SIGNIFICANCE OF THE SPATIAL DISTRIBUTION OF THE PALATOPHARYNGEUS WITH REGARD TO CLOSURE OF THE NASOPHARYNX

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Key words: *nasopharyngeal closure, palatopharyngeus, pharyngeal muscle, superior constrictor*

Background. Production of nasopharyngeal closure should be accomplished by the coordination of the various soft palate and pharyngeal muscles. However the anatomical basis of the functional roles of these muscles still remains unclear.

Aim. In the present study, we macroscopically and microscopically examined these muscles in detail, especially palatopharyngeus (PP) in order