number of destroyed cells was observed. The number of cells with signs of destruction reached 8.2±0.31%, which was 2 times higher than the healthy indicator (4.8±0.1).

Conclusions. Thus, the cytograms of patients with periodontitis combined with fractures of the lower jaw were inflammatory-degenerative type and reflected the presence of destructive processes at the level of the dentogingival joint and alveolar bone.

INFLUENCE OF ANATOMIC PARAMETERS OF THE ALVEOLAR PROCESSES OF THE UPPER JAW ON THE SIZE OF DENTAL IMPLANTS

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Background. The anatomical parameters of the alveolar processes determine the possibility of using dental implants in the treatment of patients.

Aim. Often the complexity of dental implantation occurs in the area of premolars and molars of the upper jaw due to the proximity of the maxillary sinus.

Material and Methods. The analysis of computed tomography data of 30 patients (men and women) of 2 mature periods was carried out, which were subsequently followed by dental implants «osstem» on the upper jaw in the premolar area and the first molar.

Results and Discussion. In the area of the first premolar, the average height of the alveolar process was 11.9±0.31 mm, which made it possible to establish implants in 50% of cases 11.5 mm long, 30% — 10 mm. In 10% of cases, implants were 8.5 mm long, in 10% — 13 mm. Most often implants were used with the smallest diameter of 3.5 mm (40%). In the area of the second premolar, the average height of the alveolar process was 9.7±0.27 mm, so in 40% of cases, implants were 7 mm long, 30% — 8.5 mm, 20% — 10 mm, 10% — 13 mm. The diameter of the implants was 4 mm in 50% of the cases. In the area of the first molar, the average height of the alveolar process was 4.5±0.15 mm, so 50% of the patients required an increase in the height of the alveolar process before the installation of the implants, and the operation of sinus lifting. In the area of the first molars, implants with a length of 10 mm, in 16.5% — 8.5 mm, in 16.5% — 11.5 mm were installed in 67% of cases. The diameter of the implants in 67% of cases was 5 mm.

Conclusions. Dimensions of the alveolar process determine the choice of dental implants in the area of premolars and molars of the upper jaw. The lowest height of the alveolar process is noted in the area of the first molar, which requires preparatory operations before dental implantation.

USING OF SYNTHETIC AND XENOGENIC OSTEOPLASTIC MATERIALS FOR THE RESTORATION OF ALVEOLAR BONE VOLUME IN JAWS BEFORE DENTAL IMPLANTATION

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Key words: *sinus lift, maxillofacialal area, dentistry, osteoplastic materials*

Aim. To increase the efficiency of treatment of patients with dental failure.

Material and Methods. Under the supervision were 33 patients aged 21 to 65 years, who had a sinus lift with osteoplastic material and 6 months after dental implantation in the area of bone grafting. In group 1 (17 patients), synthetic osteoplastic material (contains 60% hydroxyapatite, 40% beta-tricalcium phosphate, collagen type 1) was used, in group 2 (16 patients), the bone defect was filled with xenogeneic osteoplastic material (bovine hydroxyapatite).

Results and Discussion. All patients had no specifics in the postoperative period. According to CT-scans in patients of 1st group the alveolar jaw bone height before the treatment was an average of 1.61±0.14 mm, in 6 months after the operation was 15.25±0.23 mm. In 2nd group the alveolar bone height before treatment was 1.89±0.13 mm on the average, after the operation was 12.79±0.07 mm. According to the histological study of bone tissue obtained in patients of 1st group, the formation of a newly formed spongy bone was noted mainly at the edges of the biopsy specimen. In the center of the biopsy bone formation is absent. In patients of the 2nd group about 30% of the shear area is occupied by the spongy bone tissue, the rest of the defect is filled with osteoplastic material.

Conclusions. A comparative analysis of the use of synthetic and xenogeneic osteoplastic materials after sinus lift has showed almost identical results.

HISTOLOGICAL EFFECTS OF CHRONIC CONSUMPTION OF AQUEOUS COLA NITIDA EXTRACT ON LATERAL GENICULATE BODY OF ADULT ALBINO WISTAR RATS

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Key words: *histology, Cola nitida, lateral geniculate body, Wistar rats*

Aim. Cola nitida is a well documented natural stimulant with abundance of caffeine which excites the central nervous system. The purpose of this study is to assess the histological effects of aqueous cola nitida extract on the lateral geniculate nucleus of adult albino wistar rats. A total of 16 male Albino wistar rats, weighing 97 g to 160 g were used.

Material and Methods. Sixteen adult male wistar rats were divided into four groups of four animals each. Treated groups were orally administered with 300, 400 and 500 mg/kg body weight of aqueous Cola nitida extract. Control group was given distilled water. All the animals were fed with rat chow and water liberally for 28 days. The rats were weighed on the first and final days of drug administration with an electronic weighing balance. The rats were sacrificed by chloroform inhalation. The brains were dissected out, weighed immediately and transferred into a bouins fluid for histological study.

Results and Discussion. The result showed significant ($p<0.05$) weight gain in all the groups. Histology of the lateral geniculate body of rats treated with Cola nitida extract revealed liquifactive necrosis, cellular degeneration, hypertrophy and vacuolations.

Conclusions. We conclude that prolong consumption of Cola nitida is toxic to the cells of the lateral geniculate body as compared with the control.

POSTERIOR FEMORAL CUTANEOUS NERVE IN THE LEG: SURPRISING FACTS WITH GREAT CONSEQUENCES!

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Key words: *leg, nerve, regional anesthesia, ultrasound-guided blockade*

Background. Problems and failures in regional anesthesia procedures distal to the popliteal region might occur although blocks of the sciatic and femoral or saphenous nerve were performed successfully.

Aim. One of the reasons for failures could be the posterior femoral cutaneous nerve (pfcen) with a much more distal innervation area as described.

Material and Methods. In total 123 lower extremities embalmed with Thiel's method were investigated by dissection. The course of the pfcn was documented from the subgluteal fold to the most distal macroscopical dissectable branch. In a large subgroup (83 of 123 extremities) the topography in regards to other structures, such as the small saphenous vein, was also inspected and documented.

Results and Discussion. The pfcn ended in the popliteal fossa or the proximal leg in 78 of the 123 (63.4%) dissected legs. The remaining 45 nerves (36.6%) extended further distally and were divided into several subgroups depending on their distance from the tip of medial malleolus. In two cases to the innervation of periosteum were found (one on the fibula, one on the calcaneus).

Conclusions. The guidelines for regional anesthesia procedures distal to the popliteal fossa should be revised. The pfcn is a relevant nerve that plays a much greater role in the skin innervation of the leg than previously thought. Ultrasound-guided blockade of the pfcn should be routinely implemented.

ULTRASOUND-GUIDED ANKLE DECOMPRESSION SURGERY (UGADS) — A MINIMALLY INVASIVE APPROACH FOR THE PROXIMAL TARSAL TUNNEL SYNDROME: A CADAVERIC STUDY

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Key words: *ultrasound-guided surgery, tarsal tunnel syndrome, anatomy*

Aim. The aim of this study, is to provide a safe ultrasound-guided minimally invasive surgical approach, for the proximal tarsal tunnel (PTT) release concerning nerve entrapments.

Material and Methods. The study was carried out on 10 fresh-frozen feet. All of them were examined by US at the medial ankle region. The surgical entry point was marked throughout the course of the lancinate ligament (flexor retinaculum). Once the previous steps had been carried out, the flexor retinaculum release technique was carried out with a 2 mm entry.

Results and Discussion. As a result, an effective and safe release was obtained in all fresh-frozen feet. The ultrasound (US) has proven to be a useful tool in diagnosis and invasive and surgical treatment. The etiology of PTT syndrome (PTTS) is still unclear, but the studies show how scars and fibrosis are one of the causes. However, the open surgery that we perform in this pathology has as main complication these risk factors. Therefore, we propose this decompression surgery of the tarsal canal, which minimizes the adverse effects and complications of this surgery.