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Introduction. Surgical treatment of patients with radicular cysts often lead to poor offer of soft and hard tissues after healing which may jeopardize further implant-prosthetic rehabilitation. In such cases, the implant treatment planning should be performed even before the cystectomy and teeth extractions.

Aim of the study. Evaluation of aesthetic risk factor and obtained aesthetic and functional results in patients rehabilitated with implants after cystectomy and teeth extractions.

Materials and methods. The study focuses on 5 patients with odontogenic radicular cyst (mean age 38.45 ± 2.67 years). The dimensions of cysts varied between 1.5 -2.5 cm. The following procedures were performed: teeth extractions and cystectomy with augmentation using collagen and PRF (4 cases), delayed bone grafting with bone block from ramus and xenograft (1 case). The insertion of implants was performed after the healing period. The aesthetic risk factor was evaluated for all patients before the implant placement. On the fifth day after the implantation, the wound surface was assessed by the Early Wound Healing Index (EHI). The obtained results were appreciated using Furhauser's scale Pink Aesthetic Score (PES).

Results. The restauration of implants installed in posterior regions were easy to predict, as no major problems occurred regarding esthetical results. However, in the cases with defects in anterior region, the results showed a smaller risk aesthetic factor (≤ 2) and a good PES (close to 10) only for single unit implants. The defects restoration of two nearby teeth or more in anterior region are difficult to predict and showed a higher aesthetic risk (> 2) and lower PES values (7), which are considered at the limit of success/failure. The bone defects and the lack of periodontal ligaments affected the maintaining of soft tissues between implants and decreased the esthetic results.

Conclusions. The surgical treatment of radicular cysts and GBR for further implant prosthetic rehabilitation can lead to good predictable results with high PES values in case of single tooth defects. The two- teeth defects may jeopardize the esthetic results due to papilla maintaining between implants. This risk became emphasized for defects in anterior region of jaws.

Key words: radicular cyst, surgical treatment

290. SURGICAL TREATMENT OF APICAL CHRONIC PERIODONTITIS

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Introduction. Until nowadays the main cause of dental extractions and of odontogenic inflammatory processes on the maxillo-facial region is the apical chronic periodontitis. More than that, periapical infectious processes are a source of auto- and heterosensibilization of the body, reduce the immune resistance resulting with the loss of work capacity, which becomes an important social problem. It is important to mention that the surgical method of treatment is an alternative one in case of failure of the conservative treatment when the total removal of inflammatory process was impossible. Surgical treatment of periapical lesions has as the main objective the removal of apical and periapical pathological tissues by surgical methods with the preservation of the tooth. Even though the surgical method of treatment is just an alternative one, in case of the failure of conservative methods, we cannot say that it is the most optimal. Along with the removal of the tumor, we obtain a functional reduction of the tooth, the possibility of reinfection, but also the lack of bone tissue, which reduces the resistance of the maxilla bones and also the functional and aesthetic modifications.

Aim of the study. The evaluation of the effectiveness of surgical treatment dynamics and the development of diagnostic and therapeutic principles accordingly.

Materials and methods. In this study were included 853 of patients treated in the Republican Dental Clinic during one year – 2017, 481 of them were men and 372 women aged from 18 to 70; Out of 853 of patients, 345 were with apical chronic periodontitis, 842 extractions were performed - 247 of the them because of apical chronic periodontitis.

Results. After statistical analysis of 345 patients with apical chronic periodontitis, information collected from the observation sheets of the Republican Stomatologic Polyclinic, we noticed an increase of the periapical lesions with the aging.

Conclusions. In case of failure of endodontic treatment and the impossibility of the removal of the periapical process using other methods, it was concluded that apical resection is a rational method of treatment that patients easily approve. Surgical treatment methods have satisfactory results, which allows us to keep the tooth in the oral cavity and perform proper function. Nevertheless firstly, we have to opt for a qualitative endodontic treatment before a surgical method. Only after the failure of the endodontic treatment, we can choose a surgical one.

Key words: apical chronic periodontitis, periapical lesions, surgical treatment

291. THE USE OF SURGICAL GUIDES IN ORAL IMPLANTOLOGY

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Introduction. In recent years, the development of computer-aided design / computer – assisted manufacture (CAD/CAM) technology has allowed great improvements. Computer assisted approaches have enhanced planning and provided accuracy in transferring the virtual plan to the surgical area, which is higher compared to freehand protocols. Thus, a strong cooperation between the prosthodontist, surgeon, and dental technician through the developed technology can lead to precise treatment planning, predictable, and accurate results.

Aim of the study. To assess the applicability of surgical guides in implant-prosthetic rehabilitations of edentulous patients.

Materials and methods. The study is based on clinical and paraclinical analysis of 10 patients (4 men and 6 women, mean age 53 ± 2.4) with different types of edentulism rehabilitated using dental implants by All-on-4 concept.

The virtual planning and surgical guide printing were made using the Blue Sky Plan software. A special attention was paid to the positioning of the distal angulated implants in close proximity to the mental foramen. The postoperative CBCT was analysed to appreciate the accuracy of the obtained position of implants upon initial treatment plan.

Results. The results were uneventful. All the implants were installed according to the initial plan made by the medical team. However, in one case, due to a short passive part of the surgical guide and a small number of teeth supporting it, the drilling process required complementary checking of the implants area due to the moving of the surgical guide. Another difficulty was observed during the drilling process of the distal implants caused by the height of the guiding drills and the limited mouth opening.

Conclusions. The use of surgical guides in implants placement lead to a good and precise positioning of implants especially in cases with limited bone offer. This method allows to insert implants in exact required angulation and to avoid some complications like nerve damage. However, appropriate design of the surgical guide as well as the local limitations of the mouth should be taken into consideration in order to achieve the desired results.

Key words: implantology, surgical guides, CBCT, dental implants, All-on-4