**Materials and methods.** The study group comprises patients who benefit from the application of platelet-rich fibrin and some of them who do not.

**Results.** It is proved that regeneration of the sockets can be achieved using a non-expensive method of augmentation and prevent the reduction of bone size in future oral rehabilitation.

**Conclusions.** The benefits of using platelet-rich fibrin are to stimulate bone regeneration, increase osteogenesis and to deal with postextractional complications.

**Key words**: augmentation, platelet-rich fibrin, extraction, socket, tooth.

## 288. IMMEDIATE IMPLANT PLACEMENT AFTER EXTRACTION

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**Introduction.** Nowadays, the implant-prosthetic treatment is a globally accepted, well-defined rehabilitation option for edentulous patients. According to the classical implantation method, the implants are installed in two stages, after the final cure of the post-operative alveolar (6-12 months after extraction). During this time, the alveolar apophysis is atrophic, especially on the vestibular side, and the implant installation becomes difficult.

Considering patient's expectations and requests for reducing the number of procedures and increasing the aesthetic results, a widely recommended procedure is the immediate implantation. A tooth extraction followed by dental implant insertion and a fixed temporary restoration has many advantages for soft tissue preservation.

This study describes the surrounding implant structures, their advantages and disadvantages, contraindications and specific features of the immediate implant placement regarding the post extraction alveolar ridge anatomical and structural elements.

**Aim of the study.** Determination of efficiency of immediate implantation versus the classic method of implantation.

**Materials and methods.** The study included 20 patients- 9 males and 11 females, aged between 27 and 60 years old, with 20 extracted teeth. The group of 20 patients was divided into 2 groups. There were 10 patients in the two-step implantation protocol group and 10 patients in one-step implantation protocol group.

**Results.** At the end of the first year, in the group of patients with the two-step implantation method, all implants had good stability, except of one lost implant at the end of the second month. We determined the loss of bone tissue of  $1.0 \pm 0.70$  mm after the radiological control. Implants in the one-step implantation group were clinically stable without mobility. Loss of bone tissue was  $0.8 \pm 0.40$  mm after 1 year.

**Conclusions**. Planned and executed correctly, immediate implant placement after extraction can offer a range of benefits, such as: reduced number of procedures, preservation of the width and height of the alveolar bone, preservation of soft tissue, obtaining an ideal location for the implant.

**Key words:** tooth extraction, bone desorption, implantation

## 289. ESTHETIC AND MORPHOFUNCTIONAL REHABILITATION OF PACIENTS WITH RADICULAR CYST

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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 ( $\leq 2$ ) 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.