predict implant outcomes. We initiated a short-term prospective study on Bioactive Alfa Gate implants. The following para clinical analyses were determined to access the necessary dates for success and survive rate of implants: The implant primary and changed stability of 6 weeks stability (the resonance frequency analysis (Osstells Mentor® (RFA) Osstell AB, Gothenburg, Sweden) which was done weekly and the result was registered to make the statistical comparison. All surgeries were performed under local anaesthesia with 3 patient with open flap and 3 with flapless access to the bone. Osteotomy preparations of neo alveolas were performed with low speed high-torque drill units using intense irrigation with a cold saline solution. During each site preparation of the neo alveolas for the implants, the bone quality II to III was recorded. All implants were placed manually and final torque was measured with a manual torque control wrench with result of 35-45 Ncm. And each implant was covered with healing abutment for easy access for the quantitative evaluation of implant stability, RFA was recorded with the Osstell Mentor device. Orthopantomographic X-ray images were used for calculation of radiological bone loss and the respective success criterion Results: The ISQ testing for signs of initial and changed stability of 6 weeks after implantation could show notable result. The ISO values of the stability could be estimated for the implants at the time of healing abutment placement. Statistically results demonstrate that implants present a better stability after 6 weeks post insertion. The ISQ mean values for the 16 implants prosthetic rehabilitated after 6 week of healing period were 70.75 comparing with 67.63 mean ISQ value after implant placement, the lowest ISO mean values was 64.63 wich was registered in week 1 after the implantation. From week 2 till week 6 was in a continue increase in ISQ values. Panoramic radiographs based on the twodimensional availability, While looking at the peri-implantary loss of bone the wasn't observed Conclusion: The clinical and para-clinical outcomes in this study indicate a high stability value after 6 weeks, and we had the possibility of prosthetic treatment after the studied time

## Modern Issues of the Root Canal Treatment

# Gurin Olga

Academic adviser: Sirbu Sofia, M.D., Ph.D., Professor State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

The chronic inflammatory diseases of the pulp and of the periodont after the treatment may become sources of infection which trigger or support pathological reactions in the human body. That's why a proper endodontic treatment is needed, in order to obtain a complete healing of the inflammatory sources. Although therapeutical dentistry has achieved a great progress in recent years, regarding endodontics, the quality of the root canal treatment still remains a major problem, up till now. The investigations made by Sirbu S. and the authors (1999) establishing that in those 86,5% endodontic treated teeth, the qualitative root canal obturation consists only 3,5%, and the other cases are considered to be different failures. The therapeutical success in the gangrenous pulpitis and granulated chronic periodontitis is supported by different factors: biomechanical preparation, root canal irrigations and medicamentary dressing with antibacterial and osteoinductive proprieties, root canal tridimensional sealing with full crown restoration. The objective was to evaluate the modern methods of the root canal treatment in pulpitis and periodontitis with the use of the ProTaper System and Thermafil System as a way of mechanical preparation and obturation of the root canal. There were selected, examined and endodontic treated 21 patients aged between 21 and 45 years, diagnosed with gangrenous pulpitis and granulated chronic periodontitis. Besides the clinical and instrumental exam there were used paraclinical methods such as: electric pulp tester, apex location, and the radiography. The X-Ray exam was applied: at the beginning, during the treatment and after 3, 5 and 12 months pursuing the treatment. There were used methods of modern treatment in all patients, such as, root canal preparation by the ProTaper System, antibacterial irrigations with natrium hypochlorite -2,5% and root filling with Thermafil. In periodontitis, the root canals were temporary filled with a calcium hydroxide paste, Ultracal XS. Results and discussions: Clinical observations during 3, 5 and 12 months after the treatment show the absence of the clinical accuse and the entire participation of the endodontic treated teeth in the masticatory act. The study of the X-rays revealed the following data: complete healing in 12 examined cases; 4 cases presented bone regeneration more than half of its initial inflammatory process, 5 cases of pulpitis didn't indicate any periodontal changes. The root canal preparation with the ProTaper System and the three-dimensional obturation with Thermafil represent modern methods of treatment which assure treatment effectiveness in endodontic therapy.

# Profilaxy of Odontogenic Inflammatory Diseases of the Oro-Maxillo-Facial Region

#### Ivasiuc Irina

Academic adviser: Serbatiuc Dumitru, M.D., Ph.D., Professor State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

One of the basic problems facing the dental surgery is the prevention and treatment of inflammatory diseases of oro-maxillo facial region. Cephalic extremity suppurations with odontogenic starting point is a category of diseases that can take various clinical aspects of a greater or lesser severity. Prevention is a system of government, social, hygienic and medical measures aimed at ensuring a high level of health and disease prevention. Depending on the extent to segments of the population and existing preventive measures, we identify three levels of prevention of dental diseases: • an individual; • collective; • mass. To achieve efficiency in preventing of inflammatory diseases of oro-maxillo-facial region, we need a thorough study of clinical cases among the ranks of the population. Studing of 637 medical records of patients in the department of oral-maxillo-facial surgery in Emergency Hospital, concluded that we need to pay attention to prevention of these diseases. If the pacient don't treat in time the inflammatory process in can appeared dangerous complication like sepsis, mediastenite witch in most cases the pacient die. Making an effective prevention will lead to a considerable decrease in the incidence of complications. To study this compartment is very important for future specialist: making a correct preventive diagnosis, laboratory explorations, that section entitled patients, treatment and record the dynamics of patients after discharge. In conclusion we mention that the incidence of odontogenic inflammatory processes in Moldova is relatively larger, which requires us to make the most efficient prevention program.

# Zygomatic arch fractures

### Casapu Andrei

Academic adviser: Hitu Dumitru, M.D., Ph.D., Associate Professor State Medical and Pharmaceutical University "Nicolae Testemitanu", Chisinau, Republic of Moldova

Isolated zygomatic arch fractures, acordig to the statistics dates of the section of maxilo-facial surgery from CNSPMU during 2009 year, constituted about 23,8% from all the fractures of zygomatico-maxilar complex (ZMC). In 90% there were delayed cases which need reposition. The main etiological factor remains to be assault, which was met in 50% of cases. There is no a unique clsification of isolated zygomatic arch fractures, but recently was proposed one by Ozyazgan et al(2004). There are a lot of methods of reduction but the selection of the treatment method depends on the nature of the fracture, on the knowledge and abilities of the doctor and also on the possibilities of the institution. The technological progress, overcrowding, the speed increase that determine the car accidents and the presence of many habitual traumatic factors determine many traumas.