

collagen sponge has been applied after antiseptic preparation of the socket. In order to maintain the sponge in the socket, X sutures has been applied. The healing process was evaluated during 3 months. Clinical and radiographical examinations were performed to appreciate the healing process.

Results. The usage of collagen sponge for socket preservation appeared to be a good support for the stabilization of the formed blood clot. No complications occurred during healing. Clinical and radiographic evaluation during healing process revealed a good integration of the sponge.

Conclusions. The usage of Collagen sponges can be considered a good alternative for socket preservation. However, in case of bone walls defects, further studies are necessary in order to assess the volume maintaining with this method.

Key words: collagen Sponge, socket preservation, tooth extraction

318. ROOT CANAL IRRIGATION DURING ENDODONTIC TREATMENT

Authors: **Cristina Boronciuc, Lucia Ciobanu**

Scientific adviser: Ciobanu Sergiu, MD, PhD, Professor, Department of odontology, periodontology and pathology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Root canal irrigation aims to clean and disinfect root canal system by removing organic tissue, smear layer and microorganisms. The most commonly used irrigants are: NaOCl 0,5-5,25%, EDTA 17%, MTAD, CHX (0.2%, 1%, and 2%), citric acid (10%).

Aim of the study. To monitor over the time the effectiveness of endodontic treatment using different irrigants in combination with sonic and ultrasonic activation systems.

Materials and methods. The study was based on the treatment of 15 patients with pulpitis and periapical processes who were subjected to endodontic treatment of 9 single rooted teeth and 10 multiple rooted teeth. The irrigation protocol of pulpitis treatment entailed: 2,5%NaOCl; 17%EDTA;5,25%NaOCl; final irrigation: 5,25%NaOCl+ultrasonic activation;17%EDTA+sonic activation; distilled water; drying and filling. In the treatment of patients with periapical processes, the root canals were irrigated as follows: 5,25%NaOCl ;17% EDTA ;2%CHX, temporary filling with calcium hydroxide for 10 days. The second visit entailed removal of the temporary filling, irrigation with 17%EDTA; distilled water; 2%CHX drying and filling, X-ray.

Results. The patients were examined at 3, 6 and 12 months. The study showed that treatment by using different irrigants in combination with sonic and ultrasonic activation had a high rate of success (95-97%).

This protocol of irrigation was selected in treatment of pulpitis and periapical lesions due to the properties of each irrigant: NaOCl has bactericidal cytotoxicity, dissolves organic material, it has no effect on the smear layer. EDTA effectively removes the smear layer by chelating the inorganic components of the dentine. It does not have any antibacterial activity and does not dissolve the organic tissues. CHX has a wide antimicrobial spectrum and is effective against Gram-positive and Gram-negative bacteria, especially against *E.faecalis*.

Conclusions. Successful endodontic treatment depends on the correct use of the irrigants, respecting the consecutivity, concentration and application time of each irrigant and also a tridimensional filling of root canal.

Key words: NaOCl, EDTA, CHX

319. NURSING CARIES. INCIDENCE STUDY

Authors: **Cristina Hmelnițcaia, Lucia Avornic, Catalina Petrasco, Corina Mihailovici**

Scientific adviser: Ciumeico Igor, MD, PhD, Associate professor, Department of Maxillo-Facial Surgery, Pedodontics and Orthodontics

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Nursing caries occurs at an incidence of 19.7% in the USA (Jeffrey Dean, 2016) and 15% in Romania (Luca R., 2017). Nursing caries is a specific form of dental decay that affects the deciduous dentition. The onset of nursing caries is at an early age and progresses rapidly both in depth and on surface. The risk factors in the development of nursing caries can be divided into three main categories: pathogenic microorganisms of the oral cavity, fermentable carbohydrates and dental substrate.

Aim of the study. To evaluate the incidence of nursing caries during the prophylactic examination.

Materials and methods. This study was conducted at the PMSI Municipal Stomatologic Center for Children, Department of Maxillo-Facial Surgery, Pedodontics and Orthodontics, Nicolae Testemitanu State University of Medicine and Pharmacy, Chişinău, in 2017. The total sample size of the cross-sectional study constituted 39 children aged between 1 and 3 years (average age $1,9\pm 0,21$ years). The evaluation, performed according to the World Health Organization methodology, involved direct visual inspection and indirect one using dental mirrors. The periodontal probe was also used to examine nursing caries on the dental surfaces. The results and observations of the inspection were collected in the dental medical records (form № 043/e).

Results. Among the 39 examined subjects, 6 children were found to have nursing caries (15.38% of cases).

Conclusions. Based on the conducted research on 39 subjects (average age $1,9\pm 0,21$), the incidence of nursing caries accounts for 15.38% (6 out of 39). The survey findings correspond to the data of other international studies involving the evaluation of nursing caries.

Key words: nursing caries, index of incidence, dietary habits

320. RADIOGRAPHIC ANALYSIS OF ANGULATION OF CURVATURE OF ROOT CANALS AND THE PROBABILITY OF COMPLICATIONS OCCURRENCE USING SCHNEIDER AND WEINE'S METHODS

Author: **Dragos Cucu, Alexandru Danici, Anastasia Danici, Victoria Bordian**

Scientific adviser: Ciobanu Sergiu, MD, PhD, Professor, Department Odontology, Paradontology and Oral pathology

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. The knowledge of the endodontic system by the practitioner, is the success of the reliable root canal treatment.

Aim of the study. This study provides the evaluation of radiographic angulation of root canals and the risks of making errors and complications during endodontic treatment by using Schneider and Weine's examination methods.

Materials and methods. Radiographic evaluation was based on examination of orthopantomographic images of 12 patients, which needed endodontic treatment, and presented obvious curved anatomy of the roots. There were analyzed 22 molars and 7 premolars, in order to determine the angulation of root canal curvature by using Schneider's method, and Weine's method, which are the most practically to apply in the daily practice.

Results. The data obtained, based on the analysis of the 22 molars and 7 premolars with different degree of root curvatures, by the method of Schneider, were compared with the results obtained by the method of Weine. We can observe the prevalence of root canals with a degree of angulation greater than 20° , at the premolars and the molars which indicates the presence of severe curvatures and great risk of developing the complications. The most common separations of endodontic instruments can be found in the mesial root canals of molars, which are showing a greater degree of angulation of 300° . According to obtained data, 5 out of 7 premolars and 20 of