

Proceeding in patients treated protractedly with acetylsalicylic acid drugs during dental surgery procedures

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Introduction: A significant group of patients, which is treated at the Department of Dental Surgery at the Medical University of Warsaw, takes antiplatelet drugs chronially. One of the most popular antiplatelet drug in Poland is ACARD. This antiplatelet drug is a member of a class of pharmaceuticals that decreases platelet aggregation in one hour after taking a single dose of 75 mg. The effect of this drug lasts for 4-7 days.

Aim of the study: 1. Unconditional contraindication of Acard discontinuation for the period of tooth extraction and small dental procedures in regards to particular sickness units; on the basis of literature. 2. The degree of bleeding threat after the procedure of tooth extraction, and possibilities of minimalizing this danger in the case of patients taking Acard as a prophylactic drug.

Material and methods: In the research, two groups of patients have been subjected to tooth extraction or small dental surgery procedures, including: (1) patients who discontinued Acard on three days before the procedure and two days after the procedure, (2) patients who continued the intake of Acard during the procedure. Bleeding several minutes after the procedure was subjectively estimated and laboratory tests were carried out. Correlation of laboratory results and clinical image — length of primary bleeding — was accomplished. If necessary, the use of spongostan and/or sewing of wound was performed.

Results: Researches confirm that patients administering prophylactically only one type of antiplatelet drugs, for example Acard, do not need to discontinue the intake of this drug for the period of tooth extraction.

Conclusions: The way of proceeding before and after a treatment has to be settled in each case individually, and based on subjective medical examination, laboratory research and if necessary- on the consultation with physicians of other specialities.

Estimating state of oral cavity tissues ascertain with direction on discovering HPV

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Introduction: The human papillomaviruses (HPVs) belong to the best recognized oncological viruses. Data indicate that HPVs are important risk factor in developing premalignant and malignant transformation especially in the head and neck. The most common appearing type of HPV virus are types 6, 11, 16, and 18.

Aim of the study was the evaluation of the oral cavity tissues with regard to signs of HPV infection patients, as they came to Dental Surgery Department for dental extraction.

Material and methods: Analysis consist of 2000 patients. Clinical and histopathological investigation were used to detect HPV infection in oral cavity. Research was made in generally accepted principles.

Results: 1. HPV infection was observed in 108 patients (5.4%). 2. This malformations first of all appears on the hard and soft palate, tongue and lips. 3. In microscopic view appeared proliferation of epithelium with numerous koilocytosis, with feature parakeratosis. 4. In two cases, in histopatological research there were noticed cases of middlelevel dysplasia. 5. Papilloma appeared more often in cases of patients with wrong hygiene habits and users of dental prosthesis.

Conclusions: Every patient with Human Papilloma Virus (HPV) in oral mucosa area should be controlled by multispecialistic protection. There is also very important to periodical control towards recurrence and/or tumor transformation.

Assessment trial of stress level in patients undergoing dental surgical procedures

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Introduction: Every dental visit brings mental burden for a patient. A doctor's attitude may meaningfully reduce stress level, what allows patients to feel more comfortable. While the patient is calmer, doctor has a chance to carry on efficiently procedures. It will also enable to avoid serious after-effects such as cardiovascular complications.

Aim of the study was to display the changes of stress level in patients during dental surgical procedures.

Material and methods: The study was based on measurement of blood pressure and pulse, by usage of electronic manometer, at the patient of Dental Surgery Department with negative cardiovascular history or with stabilized arterial hypertension. The patients were divided according to the risk of cardiovascular diseases in two age groups: 1st group — under 40 years of age, 2nd group — over 40 years of age. Before the surgery the patients were asked to fill in a questionnaire on dealing with stressful situations. Four periods of examination were set, during which the measurement of parameters was done: (1) BASAL ~ 5 minutes before the surgery
2) POSTANAESTHESIA — immediately after administration of anaesthetic: lignocainum 2% cum noradrenaline 1 :80 000, (3) EXTRACTION — 3 minutes after starting the surgery, (4) RECOVERY — 3 minutes after completing the surgery. The results were worked on and analysed in StatPlus 2007 programme, calculating arithmetic mean and standard deviation.

Results: The research showed a significant increase in studied parameters at all patients. The parameters average were much higher at patients from the 2nd group. All studied parameters reached the highest levels during extraction (3) and the lowest after completing it (4). The parameter which showed the highest difference in value was diastolic blood pressure. In both groups of patients, susceptible and resistant to stress, studied parameters increased, however, the increase was much higher in the previous group.

Conclusions: Surgical procedures are highly stressful factor, not only for stress—susceptible patients. Taking into account the fact that stress may increase occurrence of general complications a special attention should be paid to patients over 40 years of age, who are not undergoing medical check—up. Stress reduction might have a significant influence on decreasing of frequency of further complications.

Evaluation of the bone profile after guided regeneration procedure

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Introduction: Loss of bone tissue of the alveolar process of the maxilla and the mandible has always aggravated prognosis of periodontal, prosthetic and implantological treatment. The achievements of the 21st century brought new treatment possibilities for patients with maxillar and mandibular bone loss. Those achievements include bone guided regeneration procedures which became inherent part of periodontology and implantology and provided successful treatment even in difficult cases.

Aim of the study was to compare the bone profile after guided regeneration procedure using different augmentation methods over time, to establish usefulness and indications for use of different jawbone substitution materials and specific membranes.

Material and methods: The study group consisted of 10 patients, divided into two groups. The examination included: subjective clinical analysis, radiological monitoring of surgical treatment effects over time (mathematical view analysis (Fractal, Fourier), Straumann measuring abutment.

Results: The crucial factor in using bone guided regeneration treatment is insufficient volume and quality of jawbone. Material and technique selection, individually complying with each case, as well as proper post-procedure state monitoring affect favorably the final results of treatment.

Conclusions: The use of bone substitutes connected with the use of specific membranes provides full bone regeneration next to an implant or bone growth in precisely required direction. The use of guided bone regeneration techniques empowers complex treatment of stomatognathic system.

Pathological effects after inadvertent injection of 2% Chlorax mistaken for anaesthetic. Case report

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Introduction: Chlorax is one of solutions of sodium hypochlorite which is a commonly used irrigant in endodontics. It eliminates the residues of pulpal tissue, cleans root canal by dissolving organic material and performs bactericidal cytotoxicity before final root canal filling. Various concentrations of NaOCl (0.5% to 5.25%) have been used in root canal therapy depending on needs.

Aim of the work is to present a case report describing adverse tissue reactions after inadvertent submucosal administration of sodium hypochlorite.

Material and methods: A 24-year old male was referred to the Department of Oral Surgery of Medical University of Warsaw with severe swelling on the left side of his face. He complained of discomfort and pain in the left cheek region, particularly upon touching and while opening mouth. The patient stated that the day before at a dentist during local submucosal anesthesia preceding root canal treatment in the maxillary left first molar he unexpectedly suffered extreme pain. It appeared that the patient was inadvertently administered 2% Chlorax instead of anesthetic. Clinical examination revealed an extended oedema of the left cheek, infraborbital and paranasal area and a massive ecchymosis including left cheek, upper lip and infraorbital region extending to the left eye. The patient also had difficulties in mouth opening due to extensive hematoma. A course of antibiotics was prescribed: at first Dalacin C 0.3 (3 x 1) was continued, then it was replaced with Forcid 0.625 (2 x 1) and Metronidazol (3 x 1), Vit C 1000 mg, Rutinoscorbin 3 x 2, Aescin 3 x 2 were also advised.

Results: Despite a tragic clinical picture at the beginning of therapy in 6-month time the patient experienced a complete resolution of signs and symptoms: hematoma absorbed entirely, there are no tissue defects regarding left cheek, suborbital area nor the left eye. There is no sign of skin discoloration. Furthermore the patient reports no paresthesia in the above mentioned regions.

Conclusions: Although established efficacy of NaOCl as an irrigant justifies its continued use in endodontics, particular care must be taken to the appropriate and safe use of this chemical solution. The symptoms like tissue swelling, ecchymosis and severe pain in this case were similar to those where NaOCl was accidentally injected to the periradicular tissue during root canal irrigation.

The exostosis removal in mandibula using piezosurgery. Case report

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Introduction: Piezosurgery is a device, mainly used in a bone surgery, based on ultrasonic vibrations. Piezosurgery hand—pieces are producing vibrations in a range of 60 to 200 μm . Those parameters allow cutting hard tissues placed near sensitive structures (such as nerve fibres or blood vessels) minimalizing the risk of damage. Piezosurgery is used in periodontology, implantology, oral and maxillofacial surgery.

Aim of the work is to present alternative method to bone drill instruments in removing exostosis.

Material and methods: A patient (57-years-old) of the Dental Surgery Clinic of Medical University of Warsaw presented with osteal exostosis in the lower jaw near the left second molar. The lesion was qualified to be removed. The exostosis was asymptomatic, but palpable. In the oral vestibule, the triangle shaped mucoperiosteal flap was separated from the bone tissue in the area of teeth 36-38 under infiltration and conduction anaesthesia. After the exposure of the compact mandibular bone, the exostosis was removed with Piezosurgery device in mode High 3, Pump 5. The margins of wound were sutured.

Results: Exostosis was removed successfully by using piezosurgery.

Conclusions: Piezosurgery enabled a complete removal of the lesion by cutting it from the lower jaw bone. The tip of the piezosurgical appliance allows selective and precise cut, which is not always possible when using handpiece burs.

The localization of mental foramina in diagnostic of an implantology treatment

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Introduction: Mental foramen is an anatomical structure, which localization characterizes a certain anatomical variability. Usually it is localized in the area of the second premolar, in a half height of a mandible body (in conditions of morphology standard). Sometimes, however, it is localized under the first premolar or between these teeth. The following structures go through it: a mental artery, a mental nerve and a mental vein. The knowledge of the accurate localization is necessary during implantological procedures in the area of this bone. The knowledge of the anatomy of this area facilitates valuing and decreases a risk of a damage of a vascular-nerve bundle.

Aim of the study was to state the accurate localization of mental foramina in order to determine a save area for implantation in front mandible part.

Material and methods: 29 preparations dry mandibles from the Department of/anatomy were analized. Measurements were done with slide caliper Inoxydable 816, results were read with accuracy to tenth parts of millimeter. Following measurements were done [mm]: I. The distance between the midline (lower edge of mandible) and the mental foramen; II. The distance between the both of mental foramina; III. Midline —the most distant point in angle of the mandible (gonion), IV. Mental foramen — gonion.

Results: A mental foramen is localized: 21.35-32.4 mm from the midline, 59.55-68.5 mm from the gonion point. Distance between mental foramina totals 29.0-47.9 mm. Relation of measurements was calculated: midline — mental foramen/midline — gonion, which totals: 0.31.

Conclusions: A calculation of distances between mental foramina enables a selection of a number and amount of implants, which may be safely implanted in this area. Basing on stable measurements relation (midline ~ mental foramen/midline — gonion) a small anatomical variability of this area has been stated. Differences of individual measurements were caused by different sizes of mandibles.