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AND PREVENTIVE DENTISTRY,
ZAGREB, NOVEMBER 20th, 2013****PREVALENCE, TYPE AND ETIOLOGY OF DENTAL
AND SOFT-TISSUE INJURIES IN CHILDREN IN
ZAGREB, CROATIA**

Josip Škaričić¹, Marko Vuletić², Sandra Hrvatin³, Jesenka Jeličić⁴, Ivana Čuković-Bagić⁵, Hrvoje Jurić⁵

¹ Private practice, Split, Croatia

² Private practice, Sisak, Croatia

³ Department of Paediatric Dentistry and Orthodontics, Faculty of Medicine, University of Rijeka, Department of Dental medicine, Clinical Hospital Centre Rijeka, Rijeka, Croatia

⁴ Private practice, Zagreb, Croatia

⁵ Department of Paediatric and Preventive Dentistry, School of Dental Medicine, University of Zagreb, Zagreb, Croatia

Corresponding Author:

Josip Škaričić

Private practice, Split, Croatia

e-mail: josip.skaricic@gmail.com

Abstract

Introduction: Orofacial injuries cause pain as well as aesthetic, psychological, behavioral, and functional problems among children, while traumatic dental injuries are surpassing dental caries and periodontal disease to become the major threat to young people's dental health.

Background/aim: This study analyzed the prevalence, type, and etiology of dental and soft-tissue injuries and the relationship between time of arrival and the presence of soft-tissue injury.

Material and methods: A retrospective study was conducted at the Department of Paediatric Dentistry at University Dental Clinic from 2009-2013 in Zagreb, Croatia using the documentation of 447 patients (264 males and 183 females) aged 1-16 years with injuries of primary and permanent teeth.

Results: The highest frequency of traumatic dental injury (TDI) was found in the age group 7-12 years and maxillary central incisors (80.9%) were most frequently affected in both primary and permanent dentitions. Enamel-dentin fracture without pulp exposure (31.9%) was the most commonly observed TDI of the dental hard tissue in both dentitions, whereas subluxation (27.3%) was the most common periodontal tissue injury type. The most frequent location, cause and seasonal

variation of trauma were at home, falling and spring. Soft-tissue injuries were observed in 203 patients (45.4%). Soft-tissue injuries were less likely when fewer teeth were traumatized ($P < 0.001$). Comparing children with soft-tissue injuries and those without, a statistically significant difference was found in the time of arrival between primary and permanent teeth ($P < 0.01$). Because soft-tissue injuries include bleeding and the clinical situation appears more dramatic, time elapsed between injury and initial treatment was shorter than in non-bleeding injuries.

Conclusions: This shows a need for an education focus towards parents and school-teachers regarding the importance of immediate therapy for bleeding as well as non-bleeding TDIs.

**MINIMAL INVASIVE TREATMENT OF WHITE SPOT
LESIONS - A CASE REPORT**

Sandra Hrvatin¹, Ivana Čuković-Bagić², Jesenka Jeličić³, Marko Vuletić⁴, Josip Škaričić⁵, Hrvoje Jurić²

¹ Department of Orthodontics and Paediatric Dentistry, Faculty of Medicine, University of Rijeka, Department of Dental Medicine, Rijeka, Croatia

² Department of Paediatric and Preventive Dentistry, School of Dental Medicine, University of Zagreb, Zagreb, Croatia

³ Private practice, Zagreb, Croatia

⁴ Private practice, Sisak, Croatia

⁵ Private practice, Split, Croatia

Corresponding Author:

Sandra Hrvatin

Department of Orthodontics and Paediatric Dentistry, Faculty of Medicine, University of Rijeka, Department of Dental Medicine, Rijeka, Croatia

e-mail: san_hrvatin@yahoo.com

Abstract

Introduction: The earliest evidence of caries on enamel surface are 'white spot lesions'. These areas lose their transparency because of subsurface porosity and mineral loss, while the surface maintains its integrity. The lesions are suitable for remineralization and arrest, otherwise the progression of caries leads to cavitation. Treating incipient caries implies both, prevention of caries progression and improving aesthetics. Good oral hygiene and application of remineralization agents are prerequisite for success. Microabrasion and enamel infiltration are the most used techniques for treatment of early enamel lesions.

Case report: A 17-year-old boy presented to our Department with clinical signs of white spots on smooth surfaces on

upper and lower incisors and canines after debonding of fixed orthodontic appliance. A remineralization agent of ACP-CPP was recommended. The upper teeth were treated with microabrasion and infiltration. After microabrasion with microabrasive slurry, lesions were etched with hydrochloric acid, rinsed with water and ethanol is applied. Finally, the low-viscosity infiltration resin was applied twice and light cured. Improvement in aesthetics was achieved immediately. One year after, treated surfaces showed good aesthetics without caries progression.

Conclusion: The combination of microabrasion and infiltration ensures a successful treatment of early enamel lesions and preserves sound hard dental tissue.

DENTAL SURGERY: THE FIRST VISIT

Jesenska Jeličić*

*The Public Institution Health Center Zagreb East, Zagreb, Croatia

Corresponding Author:

Jesenska Jeličić

The Public Institution Health Center Zagreb East, Zagreb, Croatia

e-mail: jj@arcidux.hr

Abstract

Introduction: Child's first visit to dental surgery should occur in the period between six months and one year after the first primary tooth erupts. Unfortunately, every day we witness our little patients being brought to dental surgery years later, only after they suffered dental trauma or painful side-effects of caries. Then we are forced to undertake necessary procedures unpleasant for the patient, due to the gravity of situation. This causes quite a traumatic experience for a patient and fear from returning to the surgery.

Materials and methods: The procedure of introducing young patient with the dental surgery, equipment and treatments is shown in this 15 minutes video presentation. This practice proved that patients having such a pleasant first visit to surgery developed awareness of the patient and cooperation, diminishing fear and repulsion of dentists. This proved to be a case even with the patients that were subjected with traumatic experience. Gradual adjusting is achieved only through repeated visits to surgery, rehearsing of learned and adopting of new knowledge.

Conclusion: The first encounter of the therapist and the patient is extremely important for the future relationship and successful treatment. Only dedicated dentist investing in his professional

experience and knowledge can provide the best quality of this meeting and the first oral examination. Professional experience and knowledge includes not only skills in paediatric dentistry but also in child psychology and communication. Besides child and therapist, the role of parents/caretakers is paramount, primarily through the cooperation with dentist for child's sake.

COMPLICATED CROWN FRACTURE OF AN IMMATURE PERMANENT TEETH - A THREE-YEAR FOLLOW-UP

Lucija Škojo*

*Dental Polyclinic, Split, Croatia

Resident at Department of Paediatric and Preventive Dentistry School of Dental Medicine, University of Zagreb, Zagreb, Croatia

Corresponding Author:

Lucija Škojo

Dental Polyclinic, Split, Croatia

e-mail: lucija.skojo@gmail.com

Abstract

Introduction: Crown fracture with pulp exposure has always been a challenge in everyday work, especially in case of an immature permanent teeth injury. Treatment objective is to maintain the vitality of the pulp in order to continue apexogenesis of immature roots.

Case report: An 8-year-old boy was referred to our Department four days after he had fallen from a slide. Clinical examination showed complicated crown fracture of both permanent maxillary central incisors with no signs of soft tissue injuries. Radiographic image confirmed undeveloped roots. Treatment of choice was partial pulpotomy by Cvek of both teeth affected. One month after the procedure, teeth were aesthetically reconstructed. At the 6-month recall left incisor (21) did not respond to the cold stimulation test and cervical pulpotomy was indicated. Two years later pulp vitality was preserved and apexogenesis was completed. Two years and 11 months after the trauma, pulp necrosis of right incisor (11) occurred and apexification procedure was initiated. Calcium-hydroxide compound was periodically changed once a month during 8-month-period of time. In the radiographic examination, the closure of apex was noticeable and endodontic treatment was enabled.

Conclusion: Left maxillary incisor (21) accomplished full root length and apical closure in apexogenesis process. Right maxillary incisor (11), which required apexification, formed apical barrier without reaching its full length.