
Ultrasound of Salivary Glands

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Ultrasound is a simple and non-invasive method with no negative effects on the patients health. It is also relatively cheap and enables patients to repeat the examination. It allows quick access into salivary gland morphology. This method is based on the transmission of energy into glandular tissue. The energy is then reflected from the tissue and subsequently received and recorded in order to be interpreted.

Since the size, shape and histologic structure are altered by disease, the echostructure of the salivary gland itself is altered as well, thus revealing a pathological process. The ultrasound should be used immediately after clinical examination as the first stage of diagnostic procedure.

By echogenity of inflamed salivary glands acute inflammation can be differentiated from chronic. Unlike acute inflammation in which the parenchyma echogenity is decreased (hypoechoogenic), chronic inflammation shows increased echogenity (hyperechoogenic). Benign tumors usually show lower echogenity with intensified echoes behind the back wall. The ultrasound image reveals the location, margins, structure dimensions as well as its relation to the surrounding tissues and organs. In a malignant tumor image it is important to observe whether the tumor has spread into the surrounding tissues or it has remained within the glandular tissue. Also it is essential to check whether the lymph nodes are enlarged. An anlysis of other parenchymatous organs such as the liver, spleen and lymph nodes of the abdomen is also possible. Ultrasound of the sialolites of the alivary glands can indicate corresponding pathomorphological changes in glandular parenchyma.

The ultrasound is a device which produces cross-section images of the inner parts of the human body spreading an ultrasound wave across the plane. The ultrasound device emits short ultrasound impulses of high frequency (2-10 MHz) into the human body by means of an adequate scanner. The effects of the ultrasound examination depend primarily on the quality of both the device and the scanner, in the physicians skill as well as on the pathologic changes of the salivary glands. When

performing a needle biopsy, the ultrasound device also enables the needle to be inserted at a certain angle into the glandular tissue in front of the scanner and directly into the ultrasound waves. In this way, the needle can be seen across its whole lenght, its tip being directed into the area from which the sample for biopsy should be obtained.

Although ulatrasound diagnostics is not included in the common methods of dental exmination, it allows the dentist to get better insights into etiology of the process. It also helps in making the diagnosis and, if necessary, referring the patient to further specialist examination.

Pojavnost karijesa u djece s obzirom na oralno-higijenske navike i prijašnje karijes iskustvo

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Incidencija karijesa u djece često je u vezi s određenim životnim navikama svakoga pojedinca. Višečimbenična uzrokovana zubnoga karijesa otežava nam djelovanje na njegove etiološke čimbenike nastanka, ali dobro poznavanje tih čimbenika može nam pomoći u prevenciji karijesa kao najhumanijem i najekonomičnijem načinu djelovanja protiv krijesa, danas još uvijek vrlo značajnog javnozdravstvenog problema.

Svrha ovoga rada bila je prosuditi određene pravilnosti u incidenciji karijesa u djece u mliječnoj i trajnoj denticiji s obzirom na kliničke i nekliničke varijable koje se mogu prikupiti u svakodnevnom kliničkom radu. Istraživanje je provedeno na 301 ispitaniku, stanovnicima Petrinje i Topuskog. Dob ispitanika bila je od 3 do 6 i 11 do 14 godine. U mlađoj dobnoj skupini sudjelovalo je 74 ispitanika, a u starijoj 227. Svaki od ispitanika bio je podvrgnut istome postupku. Upitnikom se pojedinačno istražila razina i način provedbe oralne higijene, uporaba dodatnih sredstava za njezino održavanje (antimikrobna sredstva, fluoridi), prehrambene navike, sastav konzumiranih namirnica te društveno-ekonomski status. Klinički pregled napravio je iskusan ispitivač. Nalaz je obuhvaćao dentalni status, određivanje količine stimulirane sline, procjena indeksa oralne higijene (Green-Vermillion), a zabilježeno je i postojanje ortodontske anomalije. Na osnovi prikupljenih i statistički obrađenih podataka došlo se do

sljedećih zaključaka: djeca ruralnog i subruralnoga dijela naše zemlje, a osobito iz ratnih područja, pokazuju vrlo visoke vrijednosti dmft/DMFT i i dmfs/DMFS indeksa. DMFT indeks iznosio je 6,67, a dmft 7,7. Dobivena vrijednost SiC indeksa iznosila je 10,89. Na temelju dobivenih rezultata možemo zaključiti da smo još veoma daleko od postavljenih ciljeva WHO i FDI za unapređenje oralnoga zdravlja. Postoji jako velik postotak ortodontskih anomalija, 68,72% u starijoj populaciji i 39,19% u mlađoj ispitnoj skupini. Istraživanjem je potvrđeno određeno pravilo distribucije karijesnih lezija prema zubi i čeljusti. Ta spoznaja, uz prikupljanje nekliničkih varijabli, može uvelike koristiti u svakodnevnoj kliničkoj praksi te omogućiti brzo i točno dijagnosticiranje. Tada se uz pravilnu preventivu i kurativnu skrb lakše može postići razina oralnoga zdravlja.

Caries Incidence in Children With Regard to Their Oral Hygiene Habits and Past Caries Experience

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Caries incidence in children is frequently connected to certain life habits of each individual. Multifactorial etiology of dental caries make it difficult to act on etiological factors, but if we get to know them better it can help us to prevent tooth decay as one of the most humane and economical ways of acting against caries, which is still an important issue of public health.

The aim of this study was to establish certain regularities in caries incidence in children during primary and permanent dentition, with regard to clinical and non-clinical variables which can be gathered in everyday clinical work. The study was conducted on 301 subjects, inhabitants of Petrinja and Topusko. The subjects were age from 3-6 and 11-14 years. Seventy-four subjects participated in the younger age group and 227 in the older. All the subjects were under the same protocol. The questionnaire examined the level of oral hygiene, use of additional supplements (antibacterial agents, fluorides), eating habits, nutrition and socio-economical status. Clinical examination was made by one experienced examiner. It consisted of a dental examination, determination of the quantity of

stimulated saliva and evaluation of oral hygiene index (Green-Vermillion). Orthodontic anomaly was also noted. On the basis of the collected and statistically processed data we reached the following conclusion: children in rural and sub-rural areas of Croatia, especially in parts affected by the recent war, show very high values of dmft/DMFT. DMFT index was 6.67 and dmft 7.7. The obtained value of SiC index was 10.89. On the basis of these results we can conclude that we are still far away from the goals set by WHO and FDI to improve oral health. We also found a very high percentage of orthodontic anomalies, from 68.72% in the older group to 39.19% in the younger. The study confirmed the rule of the distribution of caries lesions towards the tooth and jaw. This knowledge, with the collecting of non-clinical variables, can be effectively used in everyday clinical practice and allows quick and accurate diagnosis with the right preventive and curative care to improve the level of oral health.

Organizacija hitne stomatološke službe grada Zagreba i Zagrebačke županije

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Hitna stomatološka služba društvena je javnozdravstvena djelatnost primarne stomatološke zaštite organizirana i financirana od HZZO-a Grada Zagreba i Zagrebačke županije kako bi se na trima lokacijama svim građanima Grada Zagreba i Zagrebačke županije pružile hitne stomatološke usluge u vremenu kada ostale stomatološke ustanove i ordinacije ne ordiniraju, a to je tijekom svake noći od 22 sata do 6 sati ujutro, te nedjeljama, praznicima i blagdanima. U cijelosti sagledavši organizaciju spomenute službe, do 2000. godine Gradski je ured za zdravstvo, rad i socijalnu skrb proveo funkcionalnu reorganizaciju sa svrhom da se postignu najviši standardi u hitnoj zubozdravstvenoj zaštiti svih građana Zagreba i Zagrebačke županije. Služba je organizirana u uređenim prostorima i s novom stomatološkom opremom na trima lokacijama: