

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 (hypoechogetic), chronic inflammation shows increased echogenity (hyperechogetic). 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 nom 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