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ULTRASONOGRAPHY

ITS REVIVAL IN DENTISTRY

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Authors:
Aniruddh Yashwant Vishnuprashad, Arti Agrawal, Prof. Jonathan Daniel Mariappan,
Mahatma Gandhi Post Graduate Institute of Dental Sciences, Department of Oral Medicine and Radiology, Pondicherry, India

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Poster Award
Award for the best poster

A process that uses the reflection of high-frequency (3 to 10 MHz) sound waves to make am image of structures deep within the body.

Fig. 1: Ultrasonogram

Tuberculous abscess

Ultrasound demonstrating intraglandular tuberculous abcscess. There is a complex mass (callipers) in the submandibular gland with a central necrotic abscess cavity.

Fig. 2: Tuberculous abscess

Salivary gland pathology

The arrowheads indicate the mass lesion with an echogenic signal and a clear margin in the left submandibular gland, diagnosed as benign submandibular related tumor.

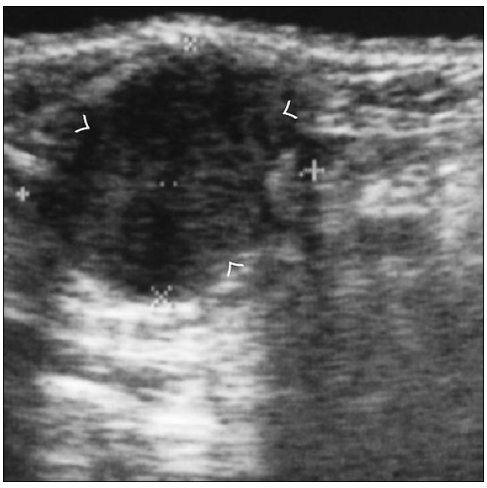

Fig. 3: Salivary gland pathology

Evaluation of distraction osteogenesis

Early and late complications of soft tissue healing, movements of the bone segment, as well as the osteogenesis are easily detectable using B-scan ultrasonography.

Fig. 4: Evaluation of distraction osteogenesis

Periodontal pocket depth estimation

Ultrasonography probe provides a mapping system for noninvasively making and recording differential measurements of depth of any patient's periodontal ligaments relative to a fixed point as CEJ.

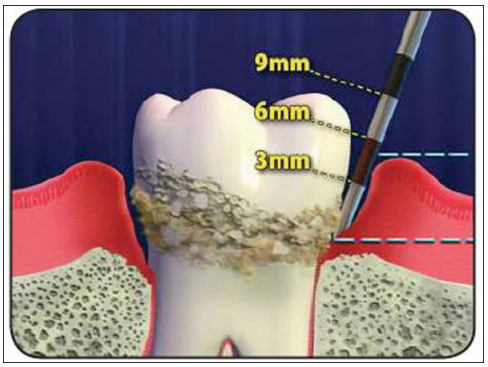

Fig. 5: Periodontal pocket depth estimation

Enamel crack

Enamel cracks can be accurately identified by ultrasound dental crack detection system using novel transducer, coupling agent & customized electronic & digital signal processing.

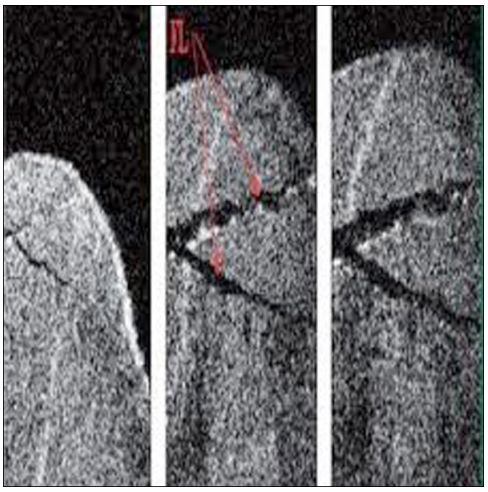

Fig. 6: Enamel crack

Cellulitis

- In cellulitis, well defined hypoechoic septa between fat and connective tissue [characteristic cobblestone appearannce]
- In abscess, anechoic to hyperechoic due to sediment, septa or gas.

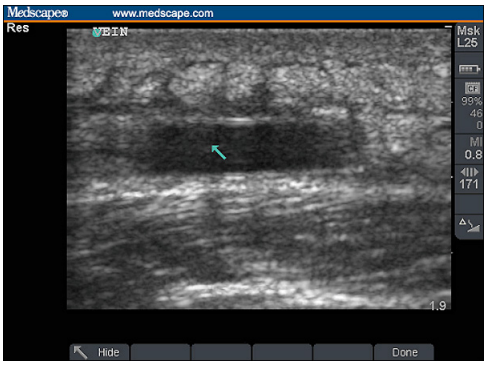

Fig. 7: Cellulitis

Head & neck cancer

Sharp borders, Hyperechogenicity, & peripheral vascularity indicate signs of metastatic lymph nodes.

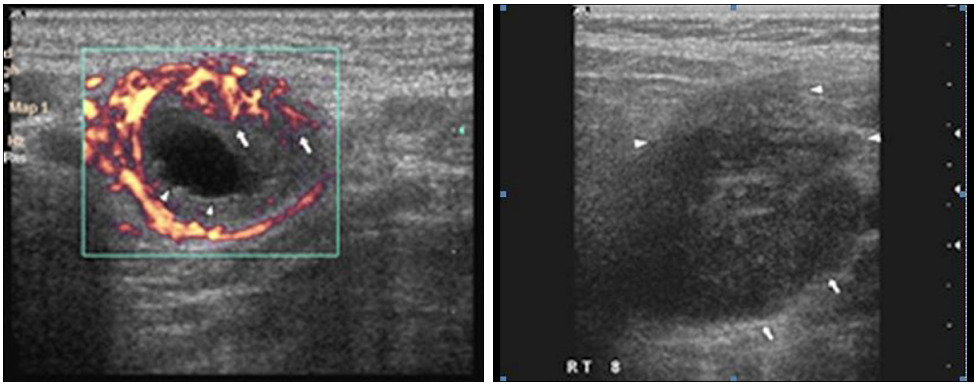

Fig. 8-9: Head and neck cancer

Large TMJ effusion

Head of the condyle and the articular eminence, is generally hypoechoic, the margin of the bone is hyperechoic. The joint capsule, retrodiscal tissue, lateral pterygoid and masseter muscles, are isoechoic and appear grey.

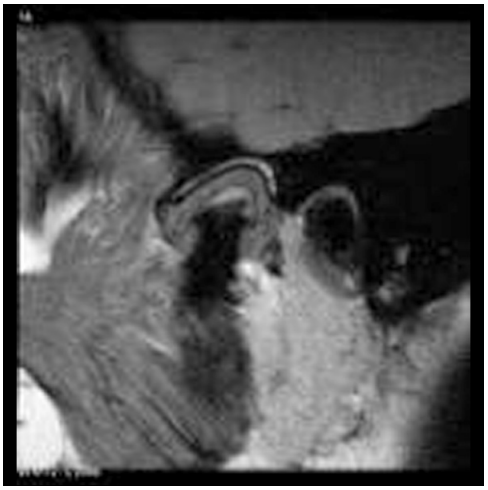

Fig. 10: TMJ effusion

This Poster was submitted by Aniruddh Yashwant Vishnuprashad.

Correspondence address:
Aniruddh Yashwant Vishnuprashad
Mahatma Gandhi Post Graduate Institute of Dental Sciences
Puducherry(U.T)
India

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