Portable EMG, Biofeedback and Contingent Electrical Stimulation applications in Bruxism

Eduardo Enrique, Castrillon Watanabe

Section of Orofacial Pain and Jaw Function, Department of Dentistry, Aarhus University, Aarhus, Denmark; Scandinavian Center for Orofacial Neuroscience

BACKGROUND

Jaw muscle activity

Clenching
Bracing
Grinding
Thrusting

BRUXISM and/or

Awake
Sleep

Prevalence
8 - 31.4%

Bruxism has two different circadian manifestations that have been proposed to have different underlying pathophysiology.

DIAGNOSIS

Clinical Dx
Possible
Probable
Definite

Portable EMG. Contingent Electrical Stimulation (CES) / Biofeedback

Parameter of Interest
Directional Change
Recognition of change at conscious level

Suitable sensor, transducer, detector
Display / feedback - VISUAL, AUDIO, TACTILE, combination

ACKNOWLEDGEMENTS

New algorithms and new devices have made it easier for the general practitioners to improve clinical diagnoses
Portable EMG devices made it possible to use biofeedback and CES approaches in order to treat / manage bruxism.