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Research Article

Neurodevelopmental Movement Disorder

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Abstract

Neurological movement disorders belong to a diverse group of neurological disorder that manifest as neurological disabilities represented by degeneration of motor dysfunction and other disorder related to loss of motor control.

Keywords: Neurodevelopmental; Neurodegeneration; Neurons; Neuroscience; Neuroanatomy; Brain Damage; Neuro; Neuroanomaly; Neurodefect; Axonal Defect

Aim

Performing eeg on the people of the movement disorder.

Material Required

Eeg instruments.

Principle

It is an important tool in the assessment of tremor and myoclonus and in differentiating functional disorders from organic disorders. electromyography), electroencephalography (EEG) and accelerometry are the main electrophysiological measurements used [1].

Procedure

Eeg was conducted on the patient and the observation was observed.

Observation

(Figures)

Treatment

- Psychical Treatment for movement disorder
- And through eeg the detected problem can be resolved.

Discussion

- Movement disorders
- Electrophysiological studies of muscle
- EMG

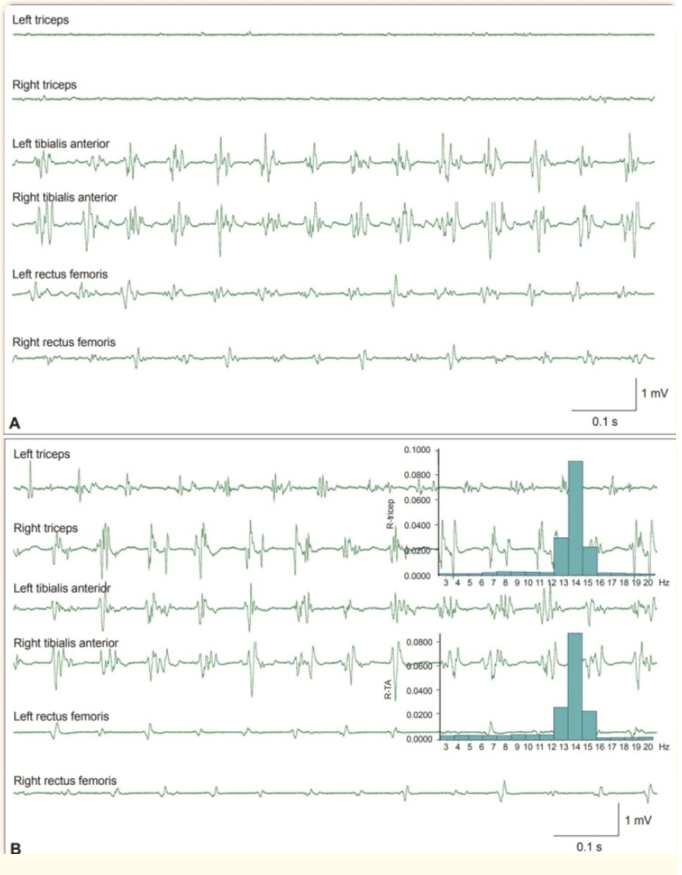


Figure 1: A) surface electromyography signals were recorded from patient with orthostatic tremor [2]. EMG in the bilateral rectus femoris and tibialis anterior muscle revealed frequency of 14 Hz. B) The patient leaned in forward position and was partially supported on his weight with both arms on table and clearly the triceps tremor were seen of frequency of 14Hz [3].

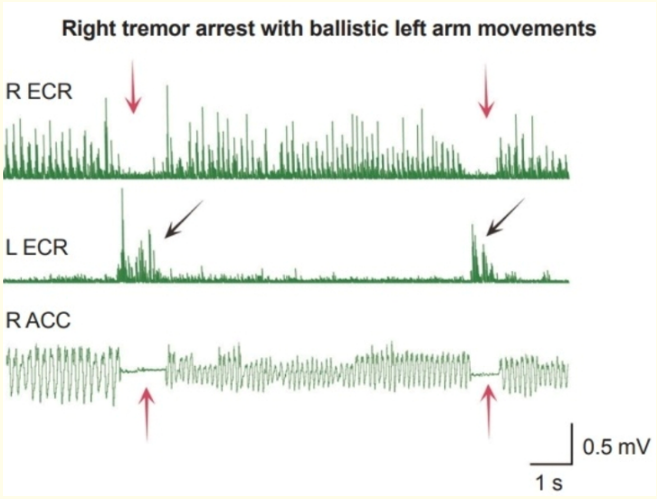


Figure 2: Contralateral ball like movement induced a pause of functional tremor. Also functional right arm postural tremor Observed [4]. EMG signals are recorded from the muscle extensor carpi radialis muscles (ECR) from both side and an accelerometer (ACC) was attached to the right middle finger. pauses of the tremors in the right ECR muscle and in the accelerometer recording (red arrows) are observed when the left hand performed voluntary ballistic movements (black arrows) [5].

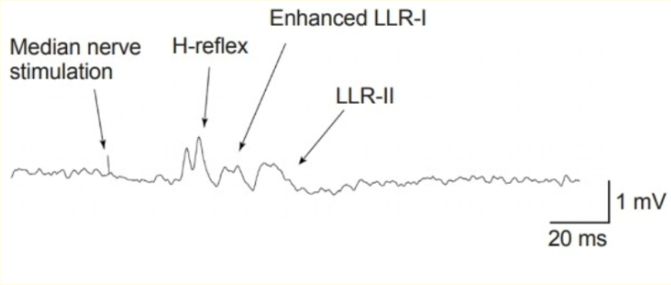


Figure 3: A long-latency reflex (LLR) in a patient with cortical myoclonus. The long latency reflex show normal H-reflex and LLR-II responses and enhance an LLR-I response in a patient with myoclonus. EMG signals were recorded from the abductor pollicis brevis muscle with 20% background activation. 3 Hz median. nerve stimulations at the motor threshold stimulation intensity were delivered [6].

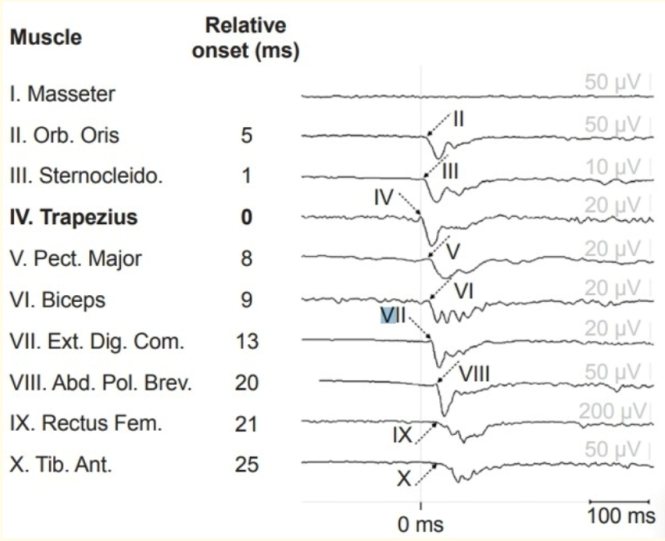
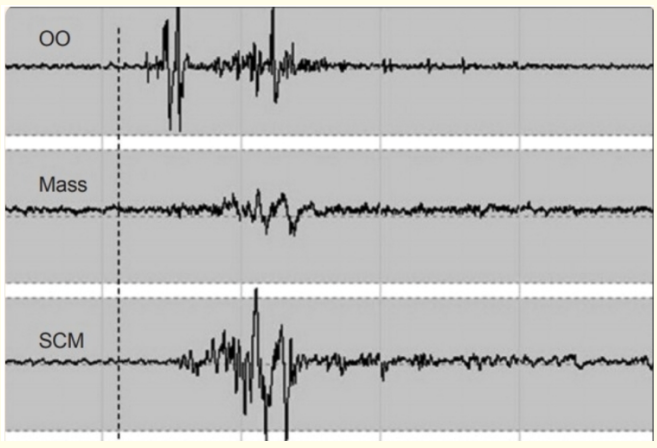


Figure 4: A reticular reflex myoclonus due to left medulla compression by the vertebral [7] artery was observed due to which myoclonus started in the trapezius muscle with subsequent muscle activation rostrally to the orbicularis oris and caudally to the tibialis anterior muscles. The corresponding onset latency relative to the first contracted trapezius muscle was shown in ms. The myoclonus has short EMG burst durations. Adapted from Beudel., et al. Orb. Oris: orbicularis oris muscle, Sternocleido.: sternocleidomastoid muscle, Pect. Major: pectoralis major muscle, Ext. Dig. Com.: extensor digitorum communis muscle, Abd. Pol. Brev.: Abductor pollicis brevis muscle, Rectus Fem.: rectus femoris muscle, Tib. Ant.: tibialis anterior muscle [8].



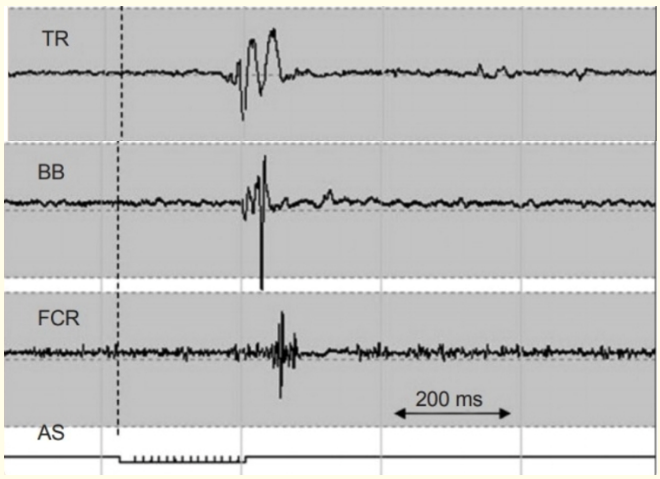


Figure 5: Symptomatic hyperplasia caused by brainstem encephalopathy. EMG recording of the startle response from an unexpected acoustic stimulus (AS, bottom line) [9]. The vertical line indicates the beginning of the AS. After the initial blink response, the muscle response to the AS was from the sternocleidomastoid muscle, with both rostral and caudal spreading. A late EMG responses in the limb muscle and generally long EMG burst durations were the characteristics of the startle reflex.

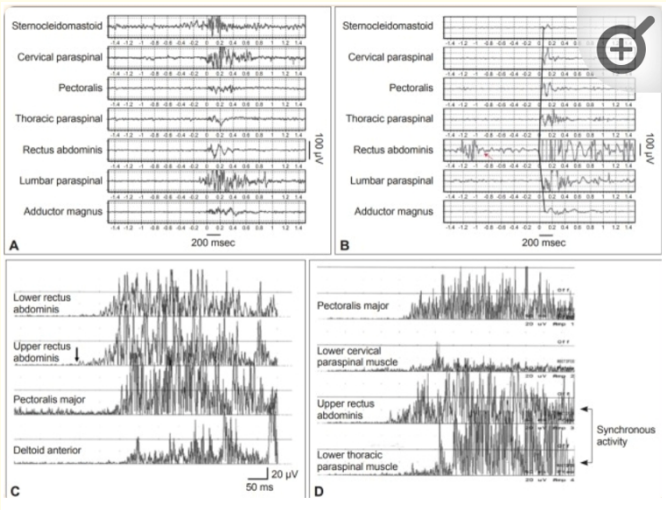


Figure 6: In this a monoclonyus burst is seen that is 200 ms or may be longer to 1000 ms and muscle activity are shown through EMG [10].

Conclusion

- Electrophysiological studies are best way to study movement disorder.
- Eeg is best way to study neurological movement disorder.

Conflict of Interest

Author declare their is no conflict of interest.

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