

Hidayati, E. R. N. et al, 2022 Abstract

Sonography And EMG Biofeedback's Role In PIN Syndrome

Objective

To research the use of sonography and **EMG biofeedback** in the rehabilitation of posterior interosseous nerve entrapment (PIN) syndrome.

Results

After three months, the patient's pain was relieved, and forearm extensor muscle strength increased. It showed that sonography and **EMG biofeedback** play a role in the detection and evaluation of muscle and nerve abnormality due to posterior interosseous nerve (PIN) syndrome.

Participant and Researchers

A 37-year-old man complained of difficulty of right finger extension and persistent pain at the forearm after a fall from a motorcycle six months before admission.

The researchers were from the Department of Physical Medicine and Rehabilitation, Universitas Indonesia Hospital, Universitas Indonesia, Depok, West Java, Indonesia. They were: *Evi Rachmawati Nur Hidayati, Zuliza Adha, Hafizia Asri Yusviani, and Savira Widha Alifprilia.*

Methods

The patient was treated with a physical rehabilitation program and a total of 12 visits. Comprehensive physical rehabilitation was performed for three months, three times in a week, by giving Low-Level Laser Therapy (LLLT), active and passive strengthening exercise of the common digital extensor and long pollicis extensor muscles using **neuromuscular electrical stimulation (NMES)** with a **NeuroTrac MyoPlus 2 Pro** device (Verity Medical), and a static hand splint to avoid muscle contracture.

Sonography and **electromyography (EMG) biofeedback** using the **NeuroTrac MyoPlus 2 Pro** device were performed to evaluate improvement after the physical rehabilitation program.

The abstract can be found at

https://www.researchgate.net/publication/367591505_Sonography_and_EMG_Biofeedback's_Role_in_PIN_Syndrome_After_Rehabilitation_A_Case_Report