

# **Conservative treatment of carpal tunnel syndrome: comparison between laser therapy and Fascial Manipulation®**

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## **BACKGROUND:**

The etiopathogeneses of Carpal Tunnel Syndrome (CTS) is multifactorial and the majority of cases are classified as idiopathic<sup>1</sup>. A randomized controlled trial was performed to compare the effectiveness of Fascial Manipulation® (FM)<sup>2</sup> and Low-Level Laser Therapy (LLLT) for CTS.

## **METHODS:**

This prospective trial included 42 patients (70 hands with symptoms), with clinical and electroneuromyographic diagnosis of CTS. The exclusion criteria were: congenital coagulopathies, use of oral anticoagulant therapy, previous treatments that ended in less than 3 months, concomitant tumors and systemic neurological and rheumatological pathologies.

The patients were randomly divided in two groups. 35 hands (Group A) were treated multiple sessions of FM (3 sessions of 45 mins. weekly) and 35 hands (Group B) received multiple session of LLLT (5 daily sessions of 10 mins). The Visual Analogic Scale (VAS) and Boston Carpal Tunnel Questionnaire (BCTQ) were performed at baseline; end of treatment and after three months. This clinical trial was performed in accordance with ethical standards on human experimentation and with the Helsinki Declaration of 1975.

## **RESULTS**

The group that received FM showed a significant reduction ( $p < 0.001$ ) in subjective pain perception and an increased function assessed by BCTQ at the end of the treatment and at follow-up. The group that received LLLT showed an improvement in the BCTQ at the end of the treatment but the improvement level was not sustained at the three month follow-up.

## **CONCLUSION:**

Fascial Manipulation® is a valid alternative treatment for CTS. The method is effective and non-invasive. It gives excellent results for the relief of local symptoms and for restoring functionality with benefits persisting at a three month follow-up.

## **REFERENCES:**

[1] Thurston, A., October 2013. Carpal tunnel syndrome. Orthop. Trauma 27 (5), 332e341. ISSN 1877e1327.

[2] Stecco, L., Fascial Manipulation, 2004., Nuova Libreria Piccin, Padua.