

# Extracorporeal Shockwave Therapy In Myofascial Pain Syndrome

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Myofascial Pain Syndrome is one of the most common causes of acute and chronic pain of the musculoskeletal system. It is characterized by myofascial trigger points (MTrPs), which are hyperirritable spots in a palpable tense band of skeletal muscle. MTrPs are caused by a dysfunction from involved motor endplates, which is followed by a segmental shortening of groups of sarcomeres.

Diagnostic approach is based on the criteria defined by J.Travell and D.Simons: while palpating the hyperirritable MTrP a characteristic referred pain and familiar pain (recognition) is elicited. Effective diagnosis and treatment requires clinical experience and diagnostic skill, especially palpation ability. Exact pressure or impulse with minimum irritation or even damage of the collateral tissue is needed to identify and release MTrPs.

The focussed extracorporeal shockwave therapy (ESWT) is, on the contrary to the radial ESWT, able to apply an exact mechanical impulse on a small spot to release MTrPs.

Moreover the focussed ESWT was also able to reproduce, while treating a MTrP, the referred and also the familiar pain of the patient.

In a pilot study 40 patients with various musculoskeletal pain have been examined and treated by an experienced medical doctor (Triggerpunkt-Therapeut -IMTT®) and identified MTrPs were treated by focussed ESWT (Piezoston 100 plus, Fa. Wolf). In more than 90% of the cases the characteristic referred pain and familiar pain (recognition) has been elicited by the focussed ESWT, when precisely the MTrP was hit by the exact impulse. This study revealed that the focussed ESWT is able to improve the diagnosis of MTrPs and also to treat musculoskeletal pain successfully.

## **Conclusion:**

In clinical routine there was so far no imaging method or laboratory test of MTrPs. Diagnosis depended entirely on history and physical examination. The use of the focussed ESWT detects MTrPs accurately and will lead us more often to recognize muscle-tissue being the cause of most of musculoskeletal pain.