Added benefits of the Aquatic Environment to Manual Fascial Release of Tensor Fascia Lata and Iliotibial Band

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Hypothesis and Purpose: Alteration of the mechanical coordination, proprioception, balance and myofascial pain have been shown to be related to tissue restriction or densification in the deep fascia and epimysium (1). Hydration has been reported to be necessary for the fascial pliability (2). Nevertheless, these 2 key favorable properties act as a matrix of its own in forming a layer, which determines the fascial layer sliding to be either smooth or restricted. Aqua-Fascial Release (AqFR) is a new and innovative manual therapy technique encompassing superficial and deep manual fascial release (MFR) under-water. The objective of the study was to test the effectiveness of MFR performed under-water versus on-land for pain and dysfunction of the Tensor Fascia Latae (TFL) and Iliotibial Band (ITB).

Methods: A group of 30 patients (mean age 48.25 years) with pain and dysfunction of TFL and ITB, were randomly divided into 2 groups of 15 each. Group A underwent the Manual Fascial Release (MFR) of Tensor Fascia Lata and Iliotibial Band in a temperature-controlled swimming pool with the client being fully or partially immersed under-water, while Group B underwent MFR on land. The treatment involved manual releases for 2 sessions per week of 30 minutes each till the densification was released, focusing on specific points of fascial densification in TFL-ITB. The outcomes measured were Visual Analog Scale (VAS) for pain, TFL-ITB flexibility test (positive or negative), fascial densification points (present or absent) and therapist reported assessment of treatment scores on 5 items (0 to 5): 1. identification of densification, 2. ease of release, 3. outcome of treatment, 4. therapist satisfaction and 5. patient satisfaction. Follow-up was measured 1 week, 1 month and 5 months after last session.

Results: Significant improvements in VAS (p<0.01), TFL-ITB flexibility testing (p<0.01), fascial densification points (p<0.01) and therapist reported qualitative scores (p<0.05) were observed in Group A, when compared to Group B. The improvements were maintained at a follow up of 1 month and 5 months.

Conclusion: The addition of aquatic environment to MFR of TFL and ITB was more effective than the MFR performed on-land in reducing pain and fascial densification and in improving fascial flexibility in the short to medium term.

References: