

The Evaluation of Electrodermal Properties in the Identification of Myofascial Trigger Points

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ABSTRACT. Shultz SP, Driban JB, Swanik CB. The evaluation of electrodermal properties in the identification of myofascial trigger points. Arch Phys Med Rehabil 2007;88:780-4.

Objectives: To determine whether skin resistance measurements can objectively identify the location of myofascial trigger points (MTPs) and to differentiate between 3 states.

Design: Static group comparison.

Setting: Climate-controlled laboratory.

Participants: Forty-nine participants (age, 20.5_2.6y) were assigned to 1 of 3 groups based on clinical examination result: absent (n_21), latent (n_16), or active (n_12) MTP.

Interventions: Not applicable.

Main Outcome Measure: Skin resistance (in kilo-ohms).

Results: The 16 data points were divided into 3 categories for analysis: MTP site, surrounding tissue proximal to the MTP (first ring), and area furthest from the MTP (second ring). There was a significant increase in skin resistance between the MTP (403.64_124.73k_), first ring (419.66_123.04k_), and second ring (454.61_163.19k_) ($P_{.01}$). The measurements did not differ significantly between the 3 MTP states.

Conclusions: The changes in skin resistance between the MTP and the surrounding tissue support the inclusion of this technique to help identify MTPs. The similarity between MTP states warrants investigation into the physiologic differences at specific anatomic locations.

Key Words: Electrodermal response; Myofascial pain syndromes; Rehabilitation.

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