THERMOGRAPHY IN THE IDENTIFICATION OF MYOFASCIAL TRIGGER POINTS

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Introduction: Computerized thermography is part of the current arsenal of instrumentation in biomechanics. Using this methodology, it is possible to assess the physiology of thermical maintenance through its skin surface representation. The aim of this work is to assess the thermography as the identification method of myofascial trigger points, been chosen the trapezius muscle as study focus since it is one of most affected body regions concerning myofascial syndrome. This syndrome is highly prevalent and historically sub-diagnosticated as it requires expert professional to establish its diagnostic, through physical examination.

Methods: This study had a sample of thirty persons, fifteen men and fifteen women, ages between twenty three and seventy years (32.5 years in average). The algometry by pressure, highly validated method on previous works, has been used as part of physical examination to confirm thermography events. The equipment used to collect the thermograms was an infrared camera with digital image processing, with thermical sensitivity for spectral ranges from 7-12 micrometers, appropriate for medical diagnostic utilization; the error index for measurement on this equipment is either 2% or 2°C. It has been used a dynamometer, clock type, for the algometry, which makes its possible to assess the applied pressure to the focal point. The trigger point identification was based in a pain diagram filled by the own subject using previously validated parameters. The imaging assessment was done using a descriptive analysis, having been taking in consideration the thermographic event corresponding to the trigger point, the hot spot or a discoid shaped surface, with one or more degrees Celsius hotter if compared to the neighbor reference point. Algometry was used in this work as reference method. Descriptive statistics were applied to assess sensibility and specificity in trapezius Myofascial Syndrome.

Results: A totality of 250 trigger points had been founded: 198 (79.2%) identified by algometry and thermography; 41 points (16.4%) by thermography only; 11(4.4%) identified by algometry only.

Conclusion: It was concluded that thermography is an appropriated method for Myofascial Syndrome diagnostic on trapezius muscle.

(DeSC: myofascial pain syndrome, thermography, diagnose).

References: