Can infrared thermography be a diagnostic tool for myofascial pain in wind and string instrument players?

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Wind and string instrument players are exposed to repetitive hand and arm movement, with static postures, painful and tiring positions for many hours. Behavioral and psychological factors can be positively related to musculoskeletal disorders with the presence of myofascial pain, which is characterized by localized, hypersensitive spots in palpable taut bands of muscle fibers (myofascial trigger points). The authors of this work intend to evaluate the effectiveness of infrared thermography in distinguishing asymmetries in temperatures of anatomical structures of the cranio-cervical-mandibular complex (CCMC) in musicians with myofascial pain, and correlate them with their clinical complaints.

Keywords: Myofascial pain; cranio-cervical-mandibular complex termography; wind and string instrument players.

Musicians have to deal with physical constraints, due to the great amount of practice. Research has shown that the musculoskeletal system is the most frequently involved area of impairment (Morse et al., 2000 and Roset-Ilobet et al., 2000). For instance, the incidence of focal dystonia may be as high as one in 200 professional musicians (Altenmueller, 2000; Schuele et al. 2005). While pain, for example, affects a large number of musicians, as it was possible to observe in a study, James (1997), that involved 57 orchestras worldwide, indicated that 56% of the musicians involved suffered pain during the previous year, 19% reported strong pains that negatively affected the quality of their performance and forced them to stop playing.