

Cervical headache: an investigation of natural head posture and upper cervical flexor muscle performance

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Abstract

In this study, 60 female subjects, aged between 25 and 40 years, were divided into two equal groups on the basis of absence or presence of headache. A passive accessory intervertebral mobility (PAIVM) examination was performed to confirm an upper cervical articular cause of the subjects' headache and a questionnaire was used to establish a profile of the headache population. Measurements of cranio-cervical posture and isometric strength and endurance of the upper cervical flexor muscles were compared between the two groups of subjects. The headache group was found to be significantly different from the non-headache group in respect to forward head posture (FHP) ($t = -5.98$, $p < 0.00005$), less isometric strength ($t = 3.43$, $p < 0.001$) and less endurance ($t = 8.71$, $p < 0.0005$) of the upper cervical flexors. A statistically significant relationship was also established between natural head posture and isometric endurance of the upper cervical flexor musculature which demonstrated that FHP corresponded with a low endurance capacity ($\chi^2 = 13.2$; $p < 0.01$). The outcome of this study highlights the need to screen for cervical etiology in patients who are suspected of suffering from common migraine.