EFFECT OF ALLODYNIA ON FINE MOTOR FUNCTION IN MIGRAINEURS

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➤ Migraines can last from 4 to 72 hours.

➤ Affects 19% of women and 11% of men worldwide.

➤ Allodynia — the experience of pain from a non-painful stimulation.

➤ Allodynia is typical of a migraine attack.
PROPOSAL

➤ Central Sensitization Theory (Dodick 2006).

➤ Prevalence of allodynia in migraineurs and its effect on fine motor function.

➤ Differences between interictal period task performance and migraine period task performance.
HOW? – INTERICTAL PHASE

➤ Ideally, ~50 migraine subjects for initial phase of trial.

➤ Subjects: 18-60 years old, meet the criteria for migraine (Headache Classification Committee 2006).

➤ Pain thresholds determined using Quantitative Sensory Testing (QST) during interictal period (Burstein et al. 2000).

➤ Fine motor skills and dexterity assessed during this phase.

➤ Bilateral pincer grip, hand grip strength — dynamometer (kg) (Massey-Westropp et al. 2011).

➤ Nine Hole Peg Test for finger dexterity (Grice et al. 2003).

➤ Grooved Pegboard Test (Yancosek & Howell 2009).
HOW? - MIGRAINE PHASE

➤ Quantitative Sensory Testing repeated 3-4 hours into subsequent migraine attack.
➤ Allodynic and non-allodynic subjects determined.
➤ Fine motor skills reassessed.
➤ Subjects’ assessment during migraine period compared to themselves during interictal period.
Hypothesis — Cutaneous allodynia sensitivities are associated with decreased fine motor function and dexterity during migraine attack.

Specifically, decreased grasp strength and finger dexterity, ipsilateral to the migraine pain.

Limitations:

Not all subjects may return to the second phase of testing (during migraine attack) (Burstein et al. 2000).

Subjects must be migraine free for 5 days before initial phase of testing.

Subjects may not be using treatment to mitigate pain/side effects of migraines during trial.


