

Differentiating migraine, cervicogenic headache and asymptomatic individuals based on physical examination findings a systematic review and meta-analysis

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KEY POINTS:

1. Migraine and Cervicogenic headache (CGH) share many clinical features.
2. Differential diagnosis between migraine and CGH is based on symptom behaviour and clinical testing
3. The Flexion Rotation Test (FRT) that evaluates C1-2 ROM and the Cranio-Cervical Flexion Test that assess cervical motor control were found to be the most helpful in differentiating; CGH from migraine and asymptomatics.

BACKGROUND AND OBJECTIVE:

Migraine and cervicogenic headache (CGH) share many characteristics. Migraine patients report; 75% neck pain associated with migraine, 61% neck pain during prodrome phase, 92% neck pain during migraine phase, 41% neck pain during recovery phase, 98% with neck stiffness ipsilateral to migraine and 42% of migraine episodes are co-occurrence with CGH. While differences in symptom behaviour can

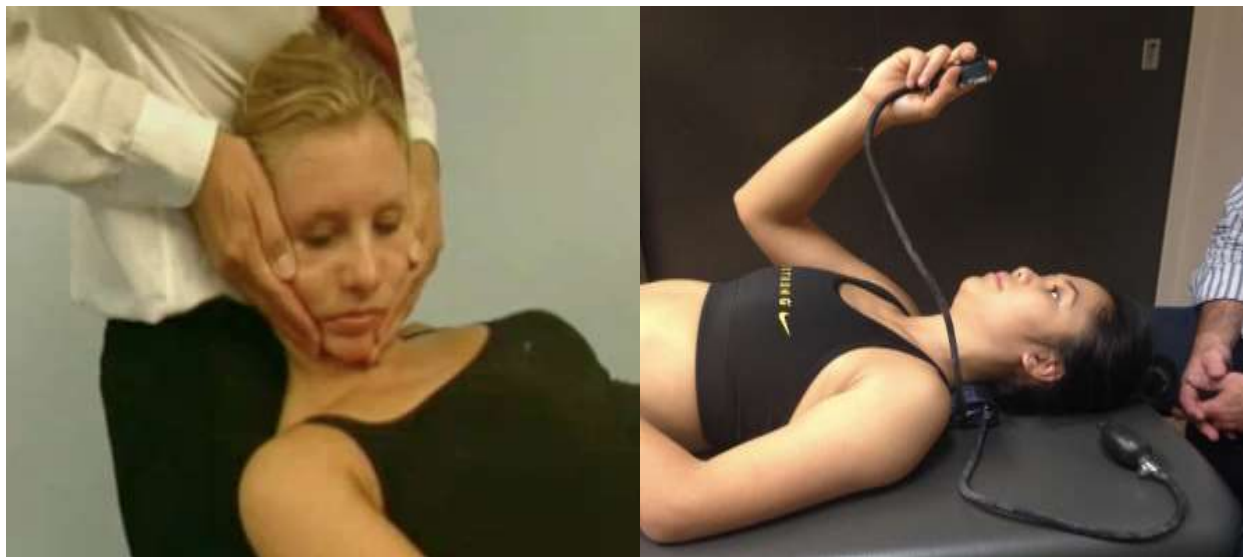
raise diagnostic suspicion of CGH vs migraine, clinical testing is used corroborate in the differential diagnosis. (1, 2, 3)

METHODS:

A systematic review following the Cochrane Handbook of Systematic Review of Interventions of 62 studies were included in the systematic review and 41 in the meta-analysis. Studies comparing the diagnostic accuracy of clinical examination of migraine, CGH and asymptomatic subjects were included.

RESULTS:

The flexion Rotation Test (FRT) and impaired cervical strength in the craniocervical flexion test (CCFT) were found to be effective in differentiating; CHG from migraine and asymptomatics. These tests are safe, reliable and while requiring minimal equipment, do improve accuracy with appropriate training. (4)



DISCUSSION:

This review of studies highlights previous findings that a positive FRT, as well as a pattern of palpable painful upper cervical joint dysfunction associated with a restriction of ROM (extension) and with muscle impairment (measured through CCFT) appear to be the best clinical tests in terms of sensitivity and specificity for the detection of cervicogenic headache. The FRT has previously been demonstrated to be valid in the evaluation of C1-2 ROM. The findings of this review show that C1-C2 was the most common symptomatic segment in CGH. (5)

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