Reviewer's report

Title: Randomised controlled trial of cervical radiofrequency lesions as a treatment for cervicogenic headache [ISRCTN 07444684]

Version: 1 Date: 15 September 2005

Reviewer: Randolph R W Evans

Reviewer's report:

General
Interesting well-done study. Clearly written manuscript. One might argue that a placebo group should have been included. For example, in migraine prevention trials, placebo response rates range from about 20-50%.

In the United States, anesthesia pain physicians are typically treating based upon very little class I evidence especially for neck and back pain. Many more randomized prospective trials such as this one are needed.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

May wish to discuss the controversy surrounding cervicogenic headaches and how subjective the diagnostic criteria are. Are you treating a homogeneous disorder? Can cervicogenic headache be reliably distinguished from other headaches-the concept has been challenged as not valid(Antonaci F, Ghirmi S, Bono G, Sandrini G, Nappi G. Cervicogenic headache: an evaluation of the original diagnostic criteria. Cephalalgia. 2001;21:573-583). Even if the diagnostic criteria are accepted as valid there are problems with interobserver reliability when applying the criteria; there can be controversy as to whether 10% are migraine and 12% are tension type(van Suijlekom JA, de Vet HCW, van den Berg SGM, Weber WEJ. Interobserver reliability of diagnostic criteria for cervicogenic headache. Cephalalgia. 1999;19:817-823).

May wish to mention the IHS 2004 criteria as below

11.2.1 Cervicogenic headache
Previously used term:
Cervical headache
Coded elsewhere:
Headache causally associated with cervical myofascial tender spots is coded as 2.1.1 Infrequent episodic tension-type headache associated with pericranial tenderness, 2.2.1 Frequent episodic tension-type headache associated with pericranial tenderness or 2.3.1 Chronic tension-type headache associated with pericranial tenderness.
Diagnostic criteria:
A. Pain, referred from a source in the neck and perceived in one or more regions of the head and/or
face, fulfilling criteria C and D
B. Clinical, laboratory and/or imaging evidence of a disorder or lesion within the cervical spine or soft tissues of the neck known to be, or generally accepted as, a valid cause of headache1
C. Evidence that the pain can be attributed to the neck disorder or lesion based on at least one of the following:
  1. demonstration of clinical signs that implicate a source of pain in the neck2
  2. abolition of headache following diagnostic blockade of a cervical structure or its nerve supply using placebo- or other adequate controls3
D. Pain resolves within 3 months after successful treatment of the causative disorder or lesion

Notes:
1. Tumours, fractures, infections and rheumatoid arthritis of the upper cervical spine have not been validated formally as causes of headache, but are nevertheless accepted as valid causes when demonstrated to be so in individual cases. Cervical spondylosis and osteochondritis are NOT accepted as valid causes fulfilling criterion B. When myofascial tender spots are the cause, the headache should be coded under 2. Tension-type headache.
2. Clinical signs acceptable for criterion C1 must have demonstrated reliability and validity. The future task is the identification of such reliable and valid operational tests. Clinical features such as neck pain, focal neck tenderness, history of neck trauma, mechanical exacerbation of pain, unilaterality, coexisting shoulder pain, reduced range of motion in the neck, nuchal onset, nausea, vomiting, photophobia etc are not unique to cervicogenic headache. These may be features of cervicogenic headache, but they do not define the relationship between the disorder and the source of the headache.
3. Abolition of headache means complete relief of headache, indicated by a score of zero on a visual analogue scale (VAS). Nevertheless, acceptable as fulfilling criterion C2 is ?90% reduction in pain to a level of <5 on a 100-point VAS.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare I have no competing interests.