Reviewer's report

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

Version: 1 Date: 21 September 2005

Reviewer: Lars Jacob Stovner

Reviewer's report:

General
30 patients with cervicogenic headache were randomised to receive either RF-lesions of facet joints c3-6 on the symptomatic side (group 1), or GON blockades (group 2). If the treatment was not effective at 8 weeks, they were offered either diagnostic cervical blockades, and subsequent dorsal root ganglion RF treatment if the blockade was effective (gr. 1), or TENS treatment(group 2).

Patients were followed for 1 year. A global perceived effect (GPE) was the main efficacy parameter for deciding if patients should receive additional treatment. No marked effect of one treatment over the other was found at any time point, both with regard to GPE, pain on a VAS scale, or on standardised QoL and pain questionnaires.

In general, the study is interesting as this procedure is widely used for similar conditions despite flimsy documentation of effect. The method (randomised controlled evaluator-blinded study) is strong.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1) One may question the degree of blinding since decisions on further treatment were dependent on the randomisation. How this was achieved should be clearly described. The question of proper blinding is perhaps less crucial as there was no effect of the most invasive treatment which conceivably would have the largest placebo effect.
2) Selection of patients (p4). It is stated that patient selection was performed in collaboration with the department of Neurology in Trondheim, Norway. Having contacted the relevant investigators of this group, I have the impression that it was the principles for making the diagnosis which had been thoroughly discussed with these researchers. If they had really been involved in the selection of the individual patient, they should have been coauthors or at least have consented to be mentioned in an acknowledgement.
3) Selection of patients (p4): Some additional diagnostic criteria are mentioned. In my opinion, those mentioned under (5) are just repetitions of some of the criteria.
4) P 7: Evaluation: It should be clearly stated whether they used a diary to score the pain during the study. In addition, the duration of the baseline period (recording of pain before treatment) should also be given.
5) p 7, l 15: Is it correct that treatment was a success if VAS decreased 2 mm? Or should it be 20 mm as stated in line 8?
6) Table 1: How can days with headache per week be 25.9 or 19?
7) Table 3: Notes under table. The exact formulas for calculating the differences should be given so that the reader may understand in which direction the changes are. Is it differences, T0 -T1 etc, or T1-T0? Since some values are negative, they are probably not quotients as indicated at the start of each row (T0/T1 etc).
8) Ethics: I take it for granted that the Institutional Review Board of the university is the research ethics committee. Since it is not explicit from the name, I think it should be clearly stated.
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Some parentheses are unbalanced (p 3 and p 5), and there are a few spelling errors and some remains of previous corrections. Some linguistic editing should also be made.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

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