

Primary headache syndromes in the elderly: epidemiology,

diagnosis and treatment

Willebrordus P.J. van Oosterhout, Carlo Cheung, Joost Haan

Corresponding author: Joost Haan MD, PhD, Department of Neurology K5-Q Leiden University Medical Center, P.o. Box 9600, 2300 RC Leiden, the Netherlands

Handling editor: Michal Heger Department of Experimental Surgery, Academic Medical Center, University of Amsterdam, the Netherlands

Review timeline:

Received: 26 January, 2016 Editorial decision: 14 February, 2016 Revision received: 18 February, 2016 Editorial decision: 19 February, 2016 Published online: 19 February, 2016

1st editorial decision:

Date: 14-Feb-2016

Ref.: Ms. No. JCTRes-D-16-00003 Primary headache syndromes in the elderly: epidemiology, diagnosis and treatment Journal of Clinical and Translational Research

Dear Mr Van Oosterhout,

Reviewers have submitted their critical appraisal of your paper. The reviewers' comments are appended below. Based on their comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

If you decide to revise the work, please itemize the reviewers' comments and provide a point-bypoint response to every comment. An exemplary rebuttal letter can be found on at http://www.jctres.com/en/author-guidelines/ under "Manuscript preparation." Also, please use the track changes function in the original document so that the reviewers can easily verify your responses.

Your revision is due by Feb 21, 2016.

To submit a revision, go to http://jctres.edmgr.com/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Journal of Clinical and Translational Research Peer review process file 02.201602.001



Yours sincerely

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

*****Reviewers' comments***** Reviewer #1:

Just few remarks regarding the manuscript:

1/ There is still question remaining if triptans should be used in pharmacological migraine prophylaxis in elderly, especially if there is no absolute contraindication. Authors should consider this option.

2/ Medication overuse headache is no more classified as a primary headache. Instead new International Headache Classification (Ref 22) refers to these headaches as secondary headache.

3/ I am missing a notion on thunderclap headache in the primary headache section. Please complete.

Authors' rebuttal:

Date: 18-Feb-2016

Ref. JCTRes-D-16-00003 WPJ van Oosterhout et al. Answers to Reviewers' comments

Reviewer #1:

Just few remarks regarding the manuscript:

1. There is still question remaining if triptans should be used in pharmacological migraine prophylaxis in elderly, especially if there is no absolute contraindication. Authors should consider this option

We agree with the reviewer there is still no clear evidence nor consensus on the question of triptan safety and cardiac contraindications. We therefore altered the text (page 6; lines 1-11):

<u>There is no evidence nor consensus</u> about the use of triptans as a migraine specific treatment in the elderly. In case of cardiac contraindications such as myocardial ischemia, triptans should not be used¹⁷. Based on expert opinions, a history of myocardial ischemia, however, is not an absolute contraindication for current use of triptans. There is no evidence that triptan use is associated with an increased risk of getting a stroke, myocardial infarction or cardiovascular condition, not even in the group of elderly with cardiovascular risk factors¹⁸. In case of no



<u>absolute cardiac contraindication</u>, the use of triptans can be considered reasonably safe. Consultation with a cardiologist offers a multidisciplinary approach when in doubt. It can however be difficult to make a reasoned choice.

2. Medication overuse headache is no more classified as a primary headache. Instead new International Headache Classification (Ref 22) refers to these headaches as secondary headache.

We agree with the reviewer that medication overuse is a secondary he we explain headache. As we explain in the introduction (page 4; lines 13-16), we feel it is valuable to include medication overuse headache in this review as well. We have added a sentence to the abstract (page 2; lines 10-11)

In this article we review the clinical aspects of common primary headaches <u>and medication</u> <u>overuse headache</u> in the elderly and their treatments, with emphasis on age specific problems.

3. I am missing a notion on thunderclap headache in the primary headache section. Please complete.

We have added a paragraph on thunderclap headache on page 10, and added a row to the table:

Thunderclap headache and other primary headaches

Clinical characteristics

Benign thunderclap headache (BTH) is a rare primary headache syndrome with estimated life-time prevalence of 0.3% in the population 55-94 years of age¹. Clinically it is characterised by a sudden and severe headache that peaks to maximum intensity within 1 minute. Secondary aetiologies including subarachnoid haemorrhage (most frequently the cause), reversible cerebral vasoconstriction syndrome, arterial dissection, cerebral venous sinus thrombosis, pituitary apoplexy, intracranial haemorrhage and other causes should be excluded. Clinically it is difficult to differentiate between BTH and a secondary headache³⁵. Other rare primary headache syndromes include primary cough, stabbing or exertional headache, and hemicrania continua. The estimated life-time prevalence of <1.0% of these headaches is suggested to be higher in this age group compared to the younger population, although clear data are not available^{1,3,34,36}.

Specific treatment

Benign thunderclap headache can be treated with acetaminophen, NSAIDs, or shortlasting – with opioids, taking into account the aforementioned limitations of use in the elderly. For the other primary headache syndromes, prophylactic treatment with indomethacin, propranolol, topiramate, etoricoxib or lithium can be considered. The complete response to indomethacin is pathognomonic for hemicranias continua.

2nd editorial decision:

Date: 19-Feb-2016

Journal of Clinical and Translational Research Peer review process file 02.201602.001



Ref.: Ms. No. JCTRes-D-16-00003R1 Primary headache syndromes in the elderly: epidemiology, diagnosis and treatment Journal of Clinical and Translational Research

Dear Mr Van Oosterhout,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

Comments from the editor and reviewers can be found below.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research