Reviewer’s report

Title: Five years after the accident, whiplash casualties still have poorer quality of life in the physical domain than other mildly injured casualties: analysis of the ESPARR cohort.

Version: 0 Date: 21 Oct 2015

Reviewer: Soufiane Boufous

Reviewer’s report:

The cohort study examines the long term outcomes of whiplash injury, compared to non-whiplash injury, 5 years after a road accident. This is an important area of research as few studies have examined the long-term quality of life of Mild road injuries. The methods are well described and are generally appropriate and the results are discussed within the context of previous research in this area. However, the paper is not well written, in some instances difficult to read and follow and is full of grammatical and other errors some of which are listed below.

The following issues need to be addressed:

Background
Page 4.

Line 7. "The number of casualties suffering from whiplash seems to be of the same order of magnitude in most countries (annual incidence between 0.04 and 3.2/1,000". First of all 0.04 and 3.2/1,000 provided is a rate and not a number. Secondly 1000 what? Accidents? People? Km driven?

Line 12. Change "2-car collisions" to collisions involving two cars. I am assuming that this is what the authors mean!

Line 38. Not sure what the authors mean by "Psychological factors are often related to WAD" they need to elaborate.

Line 56. First time ESPARR cohort is mentioned in the article. It needs to be spelled out.

Line 56. No need for "Étude ET Suivi d'une Population d'Accidentés de la Route dans le Rhône: follow-up study of road-accident casualties in the Rhône administrative département of France". Just refer to the study like it is done with others!

Page 5. Line 4. Generally the objectives of the study are not very clear. The authors said that "The present study focuses on the consequences of whiplash injury in the ESPARR cohort 5 years after the accident, in terms of pain, sequelae and QoL" what about the comparisons with other mild injuries which was stated as an objective in the abstract? Later on in the discussion, the authors also stated that a further objective was to explore risk factors for impaired QoL. The authors need to specifically define the objectives of the study at the onset, at the end of the background section.
Methods

Line 11. "...which, since 1995, has recorded all casualties receiving medical care..." do authors mean "... has recruited all casualties..."?

Line 50. Start a new sentence here " the questionnaire gathered information on the accident and previous familial, occupational and health status"

Results
Characteristics of the population

Line 51. "Whiplash casualties were more frequently 4-wheel motor-vehicle drivers, with accidents involving another motor vehicle, and with rear impact" do you mean Whiplash casualties were more likely to be among 4-wheel motor-vehicle drivers...? If so, compared to which group?

Line 59. "There were no significant differences between the 2 groups ..." are we talking whiplash groups? Be specific and use "two groups: instead of "2 groups".

Page 14, line1. Should be "One in four whiplash casualties". Line 6. It is more proper to use "three groups' rather than "3 groups". Please change throughout the manuscript.

Page 18, Line 1. The authors found no interaction between pain and PTSD in the relation between whiplash and unsatisfactory health. What about interactions between pain and other factors, particularly pain and the whiplash variable (non-whiplash, whiplash group 1 and whiplash group 2). If interaction exists, regression results should be divided into those with pain and those without pain.

Discussion

Page 20, line 14. "Rebbeck" should be "Rebbeck et al". Check all references throughout the manuscript (example: Schwerla on line 32, same page).

Page 21, line 20. The present results were adjusted "for" the intention to lodge a complaint.

Page 21, line 48. As mentioned before, I don't think that the role of pain was examined sufficiently in this study. Interactions terms between pain and various independent factors need to be carried out as part of the regression analysis in order to examine the role of pain as an effect modifier.

Conclusion
Last sentence. I am not convinced that results showing Grade-2 whiplash casualties to be particularly affected, reinforces the hypothesis of neuropathic pain. The authors need to better explain the rationale for this.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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