Title: No long-term impact of low-energy distal radius fracture on health-related quality of life and global quality of life. A case-control study.

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Author’s response to reviews: see over
Dear Editor,

Thank you for the comments and the positive attitude to our manuscript. We hereby submit the revised manuscript “No long-term impact of low-energy distal radius fracture on health-related quality of life and global quality of life. A case–control study”. We have to the best of our abilities made changes in the manuscript according to the issues raised in the comments from the reviewer.

Yours sincerely

Gudrun Rohde,
RN, PhD-student
Reviewers`s report

Title: No long-term impact of low-energy distal radius fracture on health-related quality of life and global quality of life. A case-control study.

1. Reviewer: HH

Major concern is the selection of the control subjects. It is not clear how the authors recruited the control participants. This point is crucial for the study.

Reply: The selection of the control subjects has now been more thoroughly described in revised version of the manuscript. Page 6, para 3. “The age- and sex-matched controls were randomly allocated from the national registry for the catchment area and invited by mail to participate in the study. The controls were identified consecutively along with patient recruitment. If a potential control refused to participate or did not respond to the invitation, a new control was invited. Overall, 131 potential controls refused to participate or did not respond to the invitation”

2. Reviewer: JB

Specific comments

1. I suggest to use more precise term distal radius fracture in stead of wrist fracture.

Reply: Changed in accordance with comment through the manuscript

2. In my opinion authors should describe, even briefly methods of treatment (immobilization, operative reduction, closed reduction) to give the readers information what proportion of analyzed patients was operated, what was proportion of fractures required closed or open reduction). If it is not possible; the information that the method of treatment was not analyzed should be added to the discussion as a limitation of the study.

Reply: The methods of treatment have been described page 5, para 3. Though the registration of which treatment is used in each case has not been included in the study. In the discussion this has also been addressed page 16, para 2.
3. Authors should give information how many (or %) questionnaires were incomplete. Readers should know proportion of estimated answers on the final data. It is not clearly written: are there all SF-36 complete and valid?

*Reply:* The proportion of how many questionnaires that were incomplete have been added through the description of the instruments. Substitution of missing values is based on the scale instructions given by the developers of the questionnaires.

3. **Reviewer: PG**

Minor essential revisions
- in the introduction of the main body of the manuscript I can not agree with the statement “Low-energy fracture in elderly may be devastating and impair both health related quality of life (HRQOL) and global (GQOL)”; also the authors contradict such a strong statement with their results, thus removing the low-energy and replacement with just distal radius fracture would be wise

*Reply:* The statement has been revised

- in the introduction the sentence – “And female patients with wrist fracture aged 50-65 years reported decreased physical health about one year after the fracture.” should be changed or removed

*Reply:* The sentence has been removed.

- in the conclusion of the main body of the manuscript change “small” trauma (too colloquial) into minor trauma

*Reply:* Changed in accordance with comment
Other essential revisions.

The introduction part is too long, much of the data presented there fits the discussion, though I suggest the authors to change proportions and incorporate some of the valuable data into the discussion part. Example:
“Studies have shown that diseases or injuries (e.g. a wrist fracture), and HRQOL and GQOL have bidirectional relationships, though all are influenced by characteristics of the individual and the environment (10-14). Furthermore, studies have shown that characteristics of the individuals and the environment influence HRQOL and GQOL differently, and non-medical factors seem to influence GQOL more than HRQOL (10, 12-14).”

Reply: Alterations in the revised manuscript has now been performed in accordance with the reviewers suggestions. .