Author's response to reviews

Title: Health related quality of life 5 years after carpal tunnel release among patients with diabetes. A prospective study with matched controls.

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Author's response to reviews:

Dear Editor.

We are pleased that the reviewers apparently were happy about the answers to their questions as well as the changes done in the manuscript.

Now, we have now tried to address the comments given below.

Major Compulsory Revisions

1. The authors need to establish the context of the research by summarizing current understanding and background information about carpal tunnel syndrome and diabetes. The authors did not include any background research on the topic of the manuscript, with the exception of their own research studies. The introduction must contain a literature review about carpal tunnel syndrome and diabetes as well as diabetes and health-related quality of life and coping; the Background is missing several keys articles on these topics.

Answer: Agree, we have provided background information on CTS, DM and HRQL (page 3 and 4).

2. The authors need to revise the description of the measures included in the Methods section. The authors need to include the physiological measures that were presented in the Results section. Specifically, the authors need to include Hemoglobin A1c as a measure and describe how it was collected and when it was collected. Next, the authors need to describe the nerve conduction measures that were performed (i.e., nerve sensory conduction velocity, motor latency) and what these measures mean as it relates to carpal tunnel syndrome.

Answer: Agree, details on electrophysiological and measurement of HbA1c have been added in the Methods section (page 5).

Minor Essential Revisions

1. When describing the SF-36 related to the mental health section, the authors
must include mental health? and not mental? because it does not accurately describe the component score.

Answer: OK, we have changes from “mental component score” to “mental health component score”

2. In the Statistical Analysis section and Results section, the authors need to explicitly state the covariates used in the models.

Answer: We have tried to clarify in the Methods and Results sections (page 7 and 8). The covariates are described: “…with age and baseline SF-36 measurements as fixed effect continuous covariates” (Page 7, L 5-6)

3. Under the Complications section, the authors need to provide additional detail about symptoms. For example, the authors stated that no patients demonstrated recurrent symptoms. What are the specific symptoms the authors measured? Also, the term complications implies diabetes-specific complications. Were diabetes-specific complications assessed? If not, the authors should consider revising the subheading to Carpal Tunnel Syndrome Complications?

Answer: Agree this section could be better. We have tried to clarify and added the specific symptoms that would imply recurrence of carpal tunnel symptoms. (Page 9).

4. Description of the component score physical role functioning? should be referred to as physical role functioning? throughout the manuscript and not role physical.?

Answer: The physical component score encompasses the four domains: physical functioning, role limitations because of physical health problems, bodily pain, general health perceptions. Reading the original description (Ware JE, Jr., Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. Med Care 1992; 30:473-483.) the domain "role limitations because of physical health problems" is referred to as “role physical”. A term is also further used in the literature, such as our ref.: Currie CJ, Poole CD, Woehl A, Morgan CL, Cawley S, Rousculp MD, et al. The health-related utility and health-related quality of life of hospital-treated subjects with type 1 or type 2 diabetes with particular reference to differing severity of peripheral neuropathy. Diabetologia 2006; 49:2272-2280.

Also, if we change the term there will be two domains with nearly identical descriptions, “physical functioning” and “physical role functioning”. If possible, we therefore prefer to kept “role physical” and not change to “physical role functioning.

5. In the Limitations, the authors should address other potential limitations to the study, such as the homogenous sample with regard to glycemic control and location. Also, the authors did not address race/ethnicity, education, or socioeconomic status in the study. Further, the authors administered only two questionnaires to patients. Additional validated questionnaires may have
explained the decline in HRQL (e.g., diabetes-related distress, depression, anxiety, self-efficacy, health behaviors) would have yielded a stronger study design. Without data on other variables, the authors were not able to control for relevant factors.

Answer: To match patient, with the same indication for operative treatment, require strict inclusion/exclusion criteria. To exclude confounding factors on nerve compression neuropathy, we want to achieve homogeneity regarding other factors. Some of the limitations mentioned may be difficult to avoid in a case-control study. However, we have done our best to include these limitations in the Discussion section (Page 11).