Reviewer’s report

Title: The Diagnostic Value of Ultrasonography in Carpal Tunnel Syndrome: A Comparison between Diabetic and Non-Diabetic Patients

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Reviewer: Seong-Ho Koh

Reviewer’s report:

In this study the authors show that ultrasonography is useful for the diagnosis of CTS with or without DM. However, ultrasonographic findings of CTS without DM have been well reported, so these are not novel. I think to compare ultrasonographic findings between non-diabetic CTS and diabetic CTS is important in this study, but there is little discussion about them in this manuscript. I recommend more discussion about the difference in ultrasonographic findings between non-diabetic CTS and diabetic CTS in the conclusions section of abstract and the discussion.

In page 7, the authors described “the carpal tunnel inlet of the forearm”. In general, carpal tunnel inlet is anatomically located in wrist crease. Therefore, the authors need to describe the exact anatomical location where the CSA and flattening ratio were measured or to add references.

In page 11, the authors need to more extensively discuss the result that there is no difference in cross-sectional area between DM-CTS and non-DM CTS. A previous report (J Ultrasound Med 2009;28:727-734) shows that cross-sectional area of median nerve is increased in diabetic polyneuropathy when compared with normal. So, to explain the reason why there is no difference between DM-CTS and non-DM CTS is important. I also recommend the reference will be added.

I cannot understand the following sentence; “According to ROC analysis, the cut-off value of CSA at the wrist crease for CTS confirmation is more than 12.5mm2 in both DM and non-DM CTS patients. The cause of this variability may be the differences in study design, race, grading severity, or measurement techniques [7, 20]. Nonetheless, patient with DM may not contribute to the CSA of the median nerve for CTS.” Please, re-describe the sentence and add the more detail discussion considering the above-described paper.

In page 12, I guess nerve conduction study is more appropriate than electromyography (EMG).

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare there is no competing interests in relation to this paper.