

## Response to comments

A point-by-point response to all comments made by the three Editors and two Reviewers is presented below.

### **(1) Science Editor**

Recommend for potential acceptance. 1 Scientific quality: The manuscript is a review of neuromuscular ultrasound in peripheral neuropathies. The topic is in the scope of WJR. (1) Classification: 2B. (2) Summary of the peer-review report: This is interesting article. This is an extensive review. The manuscript is generally well written. This reviewer suggests that the manuscript may be re-organized. The manuscript may be considered for publication after considering the above suggestions and correcting some typos. (3) Format: One table and two figures. Two hundred and seventy references were cited, including seventy-six references published in the last three years. Twenty-two self-citing articles. 2 Language evaluation: 2B. The authors are native English speakers. 3 Academic norms and rules: The authors signed the conflict-of-interest disclosure form and copyright license agreement. No academic misconduct was found in the CrossCheck investigation and the Bing search. 4 Supplementary comments: (1) Invited manuscript. (2) Without financial support. (3) Corresponding author has not published articles in WJR.

### **(2) Editorial Office Director:**

Recommend for potential acceptance. 1. Scientific quality: I have checked the comments written by the science editor, and I basically agree with the science editor. The topic of the paper is the ultrasound imaging in peripheral nerve disorders, and is within the scope of the WJR. The reviewers stated that this is an extensive review on ultrasound imaging in peripheral nerve disorders, which is well-written and interesting, but the reviewer 04551255 pointed out that it is too long and not very easy to read, he suggested the authors to re-organize it. The questions raised by the reviewers should be answered. 2. Language quality: 2B. The authors are from Australia, but the reviewer 04551255 suggested to correct some typos. 3. Academic norms and rules: I have checked the documents, including conflict-of-interest disclosure form and copyright license agreement, all of which are qualified. No academic misconduct was found in the CrossCheck investigation and the Bing search. 4 Supplementary comments: (1) Invited manuscript. (2) Without financial support. (3) Corresponding author has not published articles in BPG journals.

**(3) Company Editor-in-Chief:** I have reviewed the Peer-Review Report, the full text of the manuscript and the relevant ethics documents, all of which have met the basic publishing requirements, and the manuscript is conditionally accepted with minor revisions. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report and the Criteria for Manuscript Revision by Authors.

**RESPONSE:** The points raised regarding re-organisation and typo corrections are dealt with in detail in the responses to the Reviewers specific comments on the topic below, along with responses to all other comments/queries.

## Reviewer #1

**Conclusion:** Minor revision

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**Comment 1:** This is an extensive review on ultrasound imaging in peripheral nerve disorders. The manuscript is generally well written. However, it is too long and not very easy to read. This reviewer suggests that the manuscript may be re-organized. Several sections and sub-sections of techniques and applications can be considered. In techniques section and its sub-sections, different ultrasound imaging techniques can be introduced respectively, such as B-mode (including high-frequency B-mode), Doppler, contrast-enhanced ultrasound, and elastography (note that there are several categories of elastography). In applications section and its sub-sections, different applications can be described. The purpose is to make the readers quickly grasp the main contents of the manuscript after glancing over the section and sub-section titles.

**RESPONSE:** Changes made. The authors have restructured the article as suggested merging the sections entitled "Current Clinical Approaches and Techniques" and "Future Approaches and Techniques" together to form a section entitled "Current and Future Approaches and Techniques", with technique section headings encompassing B-Mode, Doppler and Elastography, and addition sub-section headings to increase readability. In addition, further subsection headings have been added to further improve readability with the "Ultrasound appearances in peripheral nerve disorders" section and subsections.

**Comment 2:** More figures and tables can be added. The current figures only contain B-mode, so figures of other modalities may be added. Also, tables comparing the cons and pros of each technique may be added. Tables summarizing the current literature with respect to different conditions (such as modality, transducer frequency, number of cases, major findings) may also be added.

**RESPONSE:** Changes made. Additional images of ultrasound modalities, including doppler and shear wave elastography have been added to Figure 1 to provide a better reflection of the scope of ultrasound modalities discussed in this review.

The authors felt that a table summarising the current literature with respect to modality, transducer frequency, number of cases and major findings in different pathological conditions will not be efficiently conveyed using a table. Specifically, most pathological conditions have been investigated in B-Mode alone, with standard transducers with upper limits 15-18 MHz. Instead a third figure has been added summarising the current literature with respect to different conditions major findings, including the focality of ultrasound findings, and typical cross-sectional area, in axonal and demyelinating neuropathies of different causes.

### Comment 3:

The manuscript may be considered for publication after considering the above suggestions and correcting some typos. The following are some of them:

1. Page 4. "15-18MHz"=> "15-18MHz". Please correct other similar occurrences in the text.

2. "doppler"=> "Doppler"

3. Page 6. Please define the abbreviation at its first appearance: "EMG". Please also check other abbreviations.

4. Page 7. "Nerves typically have low anisotropy, meaning that there is minimal alteration in echogenicity with change of the transducer angle, this can be compared with tendons and muscle which can change from hyperechoic to hypoechoic with movement of the transducer angle from perpendicular to parallel." Please consider revising this sentence, as there is grammar typo. Please also check other sentences.

5. Page 7. "30 $\mu$ m"=> "30  $\mu$ m". Please correct other similar occurrences in the text.

6. Page 8. "3cm"=> "3 cm". Please correct other similar occurrences in the text.

7. "..., however"=> "...; however"

**RESPONSE:** All changes have been made as requested, and the document re-checked for similar occurrences in the text.

**Reviewer #2:**

"Interesting article"

**Conclusion:** Accept (High priority)

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**RESPONSE:** Changes made. Language polishing has been performed, and typos corrected, as detailed in response to Reviewer #1.