# Peer Review File

Article information: http://dx.doi.org/10.21037/apm-20-864

# **Review Comments**

This article is a good attempt to understand the pain characteristics of ALS and its impact on the quality of life in the ALS population. This study included 89 ALS patients, which is a relatively large cohort for an ALS study, and a control group of 89 patients with peripheral neuropathy. The study found that pain negatively affects the quality of life of ALS patients. These results indicate the pressing need to appropriately evaluate and relieve pain in these patients.

### 1. Title

1) The title is "Pain characteristics in amyotrophic lateral sclerosis 1 and its impact on patients' life: a prospective observational study on 178 patients in a northern city of China". However, the study actually involved 89 patients with ALS and 89 patients with peripheral neuropathy. Therefore, the information on the title is misleading. If it is necessary to state it in the title, the authors would need to clarify numbers of patients with each disease.

**Reply 1:** Thank you very much; you are right; "178 patients" is misleading. Change in the text: We changed the title to "Pain characteristics in amyotrophic lateral sclerosis patients and its impact on quality of life: a prospective observational study in a northern city of China".

2) The authors stated in the title that the study is a prospective study, whereas in the discussion section they mentioned that it was a cross-sectional study. The design of this study should be clarified.

**Reply 2:** Thank you very much. Sorry for the confusion.

Change in the text: We clarified the design of this study as "Secondly, this is a prospective study design, and therefore, the course of pain over a longer timeframe was unavailable." in line 193–194.

# 2. Methods

1) Patients: There are two descriptions about ethical approval and informed consent in the methods section. Please revise the information about ethical considerations.

**Reply 3:** We deleted the sentences: "This study was approved by the ethics committee of our hospital. All subjects provided signed inform consent".

Change in the text: We deleted the sentences: "This study was approved by the ethics committee of our hospital. All subjects provided signed inform consent." in line 83–84.

2) Procedures: Include the version and company information of G\*Power software used to calculate the sample size. If the main objective of this study is to compare the

pain frequency between ALS and peripheral neuritis, the effect of size needs to be calculated using each frequency.

Reply 4: You are right. We were aware of this issue.

Change in the text: We stated the sample size calculated by "the effect size for a primary outcome was the pain frequency in the patients with ALS and peripheral neuritis." in line 102–103.

3) Statistical analysis: No data is presented as median/range in this article. If a nonparametric test (Mann-Whitney U test) is to be used, the continuous data should be presented as median.

**Reply 5:** You are right; no data is presented as median/range in this article.

Change in the text: We deleted the "Mann-Whitney U test or Chi-square test" sentence in line 124.

# 3. Results

1) Pain severity is shown only as PSI (average of three questionnaires). A comparison of the worst or average pain in patients with ALS and those with peripheral neuropathy should be included to enhance our understanding of the characteristics of pain in ALS.

**Reply 6:** Thank you for pointing this out. We added the worst or average pain from the initial data.

Change in the text: We added the worst or average pain from the initial data in line 138–140.

2) Pain treatment details of each group, including data on non-drug treatment should be included.

**Reply 7:** We added the pain treatment details of each group in the text.

Change in the text: We added the pain treatment details of each group in line 130–132.

3) In Table 1, the percentage of pain sites should be calculated for all patients. This would clarify the pain frequency at each individual site in ALS patients.

**Reply 8:** We added the percentage of pain sites in all patients from the initial data. Change in the text: Table 1 in yellow colour.

4) Please standardize the number of decimal places to make the numbers consistent. For example, in Table 2, the mean has two decimal places, while the SD has three decimal places.

**Reply 9:** Thank you for pointing this out.

Change in the text: We standardized the mean and SD to two decimal places in Table 2 to make the numbers consistent.