Reviewer's report

Title: Subjective health complaints in patients with lumbar radicular pain and disc herniation are associated with a sex - OPRM1 A118G polymorphism interaction: a prospective 1-year observational study

Version: 1 Date: 29 December 2013

Reviewer: Richard Crist

Reviewer's report:

Major compulsory revisions: N/A

Minor essential revisions:

1. All instances of the gene name OPRM1 should be italicized.

2. There is no mention of correcting the p-values for the multiple statistical tests that were run in the analysis. If this multiple testing correction wasn't already done, it needs to be performed. The table legends or methods should note if the p-values are corrected or uncorrected. Any p-values that are < 0.5 before correction and > 0.5 after correction should be considered nominally significant and not truly statistically significant.

3. While it is informative to analyze sex differences within the genotypic groups as in Table 1, it would also be beneficial to analyze differences between the genotypic groups. For example, it is important to know if women with the AA genotype have different characteristics than women who are G carriers. It is also important to discuss these differences in the results and discussion sections, which are now largely focused on comparing male G carriers to female G carriers.

4. On page 11, the first full sentence says "As shown in the present study, the OPRM1 A118G polymorphism also seems to affect nociceptive and supraspinal neuronal signaling in humans..." This seems like an overstatement given that the present comparison between genotype and subjective health complaints doesn't directly address those mechanisms.

5. In the conclusion, the phrase "a sex-specific polymorphism" should be changed since it sounds like the polymorphism is sex-specific rather than the effect of the polymorphism being sex-specific.

Discretionary revisions:

1. Referring to the different alleles as "A118" and "118G" is somewhat confusing and ultimately unnecessary since there is only one polymorphism being discussed in the manuscript. They can be referred to as simply the A and G alleles. Likewise referring to the polymorphism as "the OPRM1 A118G" is not necessary after the first instance in the manuscript.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.