Author's response to reviews

Title: Toe spreading ability in men with chronic pelvic pain syndrome

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Author's response to reviews: see over
Dear Editor,

Thank you for the privilege to revise our manuscript “Toe spreading ability in men with chronic pelvic pain syndrome”. We would also like to thank all the reviewers for their suggestions and raised questions. In addition to the revised manuscript, we are submitting a letter, “Response to the reviewers”, which contains the changes made in the revised manuscript and responses to some of the questions raised.

Thank you again for giving us the chance to revise our manuscript.

Best regards,

Ugur Yilmaz, MD

Response to the comments raised by Reviewer “Michel Pontari”

“Discretionary Revisions”
1. To our knowledge, toe-spreading parameter has not been looked at in any other populations.
2. We agree that the question of right/left dominance may be pertinent. However, we do not have the data to evaluate the correlation between right/left dominance and toe-spreading.

Response to the comments raised by Reviewer “Ahmet N Ghanem”
1. The abnormality described by the review about the morphological appearance of toes in the figure would be an appropriate exclusion criterion. However, the physical examination of the subject in the figure did not have a meta-carpo-phalangial joint disorder.
2. Reviewer’s comment: “The hypothesis has been proved by authors based on demonstrable statistical significance (p=0.007) that CPPS patients are less able to spread all toes than men without CPPS.” We do not wish to overstate the importance of our findings. We do not state we have “proved” that CPPS patients are less able to spread toes than men without CPPS. We simply note that the difference in our observations on patients and controls were statistically significant. We made an observation based on our data, but that is far from a proof that we are right. Another prospective study with the toe spreading observation as a primary outcome is needed.

Second, our conclusion cannot be that CPPS patients are less able to spread all toes than men without CPPS without qualifying the type of spreading we considered. We agree that we did not examine all combinations of toe spreading ability. We assumed that the ability to spread all toes was normal and that less was abnormal. We only stated that CPPS patients were less often able to spread
all toes than men without CPPS. This statement can be recognized both in the abstract and the discussion.

3. This is not a matched case-control study, since the controls and patients were not matched on all parameters but CPPS. The reviewer is probably referring to comparability of two independent groups instead. We had the same inclusion and exclusion criteria for both controls and patients.

The observed difference between the two groups in age has been stated in the discussion as one of the limitations of the study. Nevertheless, we found no correlation between any demographic factor and ability to spread toes in both the CPPS or control groups.

4. The lack of association between toe-spreading and disease severity as reflected in the NIH-CPSI scale does not refute the general hypothesis stated in the introduction, that there are differences between the two groups in toe-spreading ability. We would have been quite surprised if there was a direct relationship between the CPSI and the degree of ability to spread the toes as this would suggest a very strong cause effect relationship. Since CPPS may reflect a number of etiologies and factors which reflect severity we would not expect a single physical finding to be strongly correlated with the CPSI.

5. We reviewed our statistical analyses in accordance with the Reviewer’s comments. The study was observational, and we consider it as a hypothesis-generating study instead of hypothesis-testing. In the revised version, we stressed this fact especially in the discussion section with additions in the last paragraph. This observational finding supports the “general” hypothesis that men with CPPS may have neurological abnormalities in the sacral segments. The value of this paper is in generating hypothesis about sacral neurological abnormalities which may in later studies be more accurately defined and tested.

Response to the comments raised by Reviewer “Vance Berger”

1. “The t-test simply will not suffice….”
We agree. We did not use t-test for table 1. Table 1 is a numerical presentation of overall data showing the number of interdigital spaces on both right and left sides in both groups. We used t-test for only continuous variables such as age differences and Chi-square tests for categorical variables (tested but not shown in table 1). Spearman correlation was used to assess association between NIH scales, age, and toe spreading ability among pain patients.

2. “What is the null and alternative hypothesis do we have and what kind of trends are we looking for?”
The hypothesis has been stated in the introduction section. However, this is an exploratory, not confirmatory study, and therefore, we cannot make clear cut
conclusions about the hypothesis. We looked at toe spreading to examine one aspect of sacral nerve function in our prospective protocol. We were somewhat surprised that we found the ability to spread all toes was less common in CPPS patients than controls. Neurological abnormalities have not been prominent in description of CPPS in the literature or in our experience. One of the limiting factors for a definitive statement was the presence of abnormal findings also in the healthy control group. We assumed that the ability to spread toes on both feet was normal. We agree that the large number of normal men who could not spread all toes begs the question of what is normal. We pointed out more clearly to this fact in the revised version and preferred to use the term “incomplete toe-spreading” instead of “abnormal toe-spreading” in the revised manuscript in order to use a more proper term for our finding.

3. Why were the zero excluded? Are those not real data points?
We agree that zero should not be excluded. There is no “exclusion” of zeroes, since zero was not a possible outcome for an individual (we are looking at the measure at the individual level). The table is supposed to simply describe the data. Each cell has the number of subjects with an outcome that falls in the category of the row and column in which the cell is located. Therefore, an empty cell means that nobody fell into that combination. This is very different from ignoring a cell with value zero 0 when doing a log-linear analysis, for example.

4. Regarding the reviewer’s comment on the ordered hypothesis and his suggestion for data analysis: again, this is an exploratory study and as such, we did not have a priori hypothesis that would involve ordered categories. At this first look at the issue of toe-spreading we chose to compare complete to incomplete toe-spreading ability. Therefore, we had a binary variable and tested the proportions of complete toe-spreading in each group. Although the reviewer’s suggestion for analysis is very interesting (the suggested paper was read by our statistician) and worthy of use in future studies, we feel that at this point, we are not yet ready to decide on the order that the toe-spreading measures would take when considering both feet. More needs to be known regarding the neurological mechanisms of toe-spreading in order to state such a hypothesis.