Reviewer's report

Title: Asymmetry and Activity Indices and Occlusal Contacts Distribution in Orthodontically Treated versus Nontreated Young Adults.

Version: 3 Date: 30 May 2015

Reviewer: Conchita Martin

Reviewer's report:

My main concern about this manuscript is the lack of homogeneity of the sample. Therefore, my recommendation is REJECT.

Major Compulsory Revisions

Material:
In this observational study, the imbalance in genders could influence the results. In the treated group, the uneven distribution of malocclusions may affect the results. The type of growth of these patients is totally different. This fact is not reflected in the sample description (high/low angle...). The same applies to the non-treated group. They should have been selected based on ideal occlusion since malocclusion, also from different types, introduces a big bias. Healthy definition, dealing with orthodontic treatment and malocclusions, should include class I occlusion and other ideal features. Transverse malocclusions were excluded, but also antero-posterior malocclusion should have been excluded.

STATISTICAL ANALYSIS
Among the tests used, authors mentioned Kruskal Wallis, which apparently was not used. If they used it (I did not see any non-parametric comparison among three or more groups), then ANOVA should also be mentioned in the parametric tests description.

Minor Essential Revisions

Abstract:
Method: Describe sample size and main characteristics (gender, age...). Describe outcome variables that were measured.

Results: provide numeric data, comparing results, and significance associated with the significant differences.

Introduction:
Some of the sentences are not easily understandable. English revision is required.

In general, the introduction is very short.

Results:
The name Mann-Whitney is wrongly used since authors wrote Whitney-Mann.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests