Reviewer's report

Title: Foot pressure distribution during walking in young and old

Version: 2 Date: 17 January 2005

Reviewer: Meir Nyska

Reviewer's report:

General

The study deals with the main differences in the plantar foot pressure distribution of young and old people.

The article is important in its field and may contribute to the understanding of the biomechanics in elderly and might explain the increased probability to develop problems and symptoms mainly during physical activity.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Comments to Methods
Subjects Though the selection of the subjects according to the average age is enough the higher age at the young group is 39 years and in the older group is 63 not a big difference that might lead to insignificant results. The study group is rather small (mentioned in the limitations)

Comments to Discussion
In the discussion the authors mention that elderly patients underpronate during normal walking. They concluded it from the plantar foot pressure distribution. The plantar foot pressure distribution measure loads and not angles of the foot so it is incorrect to use these terms. Moreover if there is less force on the medial side and more on the lateral side it might be because of supination of the foot causing more pressure on the lateral side.
As for the age related arch-flattening phenomenon pressure and loads does not indicate flattening. Area measurements and its configuration can demonstrate flattening.

Limitations
Average age difference is close to 40 but the higher age at the young group is 39 years and in the older group is 63 not a big difference and should be mentioned in the limitations.

Conclusions
The medial arch is responsible for propulsion and lower forces there means lower propulsion. Pronation was not measured and therefore Underpronation in the medial foot is incorrectly used as conclusion.

These are minor compulsory revisions as there is some wrong use of terms.

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Discretionary Revisions (which the author can choose to ignore)
What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

There is no financial or non financial competing interest