Reviewer's report

Title: Overuse Syndrome of the Ankle in Professional Ballet Dancers seen on MRI

Version: 1 Date: 23 July 2007

Reviewer: Harri K Pihlajamäki

Reviewer's report:

General
The authors are dealing with an interesting subject; bone stress injuries in a specific group of people, professional ballet dancers, whose ankles are under exceptional loading conditions and thus vulnerable for injury. Hence, the manuscript has potential for publication. However, I have many concerns that need to be clarified, and major revision is needed to improve the manuscript before it can be considered suitable for publication.

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

The authors use the term “overuse syndrome of the ankle”. However, the only MRI findings presented in this paper are related to bone stress injuries of talus. Therefore, I think they should use the term “bone stress injury” instead of overuse syndrome, because no significant ligamentous or other similar findings emerged in their data. They should also use and cite the MRI classification presented by Fredericson et al and Kiuru et al in the previous literature.

The number of subjects included in the study is rather limited. It would be useful to know the whole population of ballet dancers available for the MRI if they all had participated in the study. The authors mention that the ballet dancers for the study were recruited by the team physician caring for the local professional ballet company. The inclusion and exclusion criteria of the study need to be clarified and explained in more detail. Nearly all subjects reported symptoms in the ankle region. Were the symptoms asked during recruitment? If so, why only two asymptomatic dancers were included? Is it possible that mainly the symptomatic ballet dancers took part in the study in order to be diagnosed and to receive medical care for ankle pain? If necessary, the possible selection bias should be also noted in the discussion when dealing with the weaknesses of the study. The authors should also cite in the discussion the article of Kiuru et al (Kiuru MJ, Niva M, Reponen A, Pihlajamäki HK. Bone stress injuries in asymptomatic elite recruits: a clinical and magnetic resonance imaging study” Am J Sports Med. 2005 Feb;33(2):272-6), which describes MRI findings of bone stress injuries in asymptomatic patients.

For most of the MR scans, the authors used a 0.2-T unit. Only two patients were
imaged with a more accurate field strength, 1.5 Tesla. Why were two different scanners used?


As presented above, there are many substantial concerns that need to be addressed and hopefully resolved before I can recommend acceptance of this manuscript for publication.

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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)
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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.