Reviewer's report

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

Version: 1  Date: 25 July 2007

Reviewer: Nancy J Kadel

Reviewer's report:

General
The finding of talar marrow edema in ballet dancers is an important topic. The methods are well described for the MRI scan, but no questionnaire or pain scale is given, nor the method of determining the level of the dancer's pain. The study would be cleaner if all subjects were studied on one type of MRI scanner rather than 10 ankles on one type, and 2 ankles on a different MRI scanner with a different protocol. However, in looking at marrow edema alone, the difference may not be critical.

More problematic is the lack of a control group in this study. All 11 dancers (12 ankles) were actively performing, yet 9/11 dancers (82%) reported "mild pain" with activity. For the study to be stronger, a control group of 11 dancers with NO pain could be compared to 11 dancers with "mild pain" or the dancers could be compared to an age matched group of non-dancer athletes such as runners or soccer players or any similarly active group.

Another way to help make the study stronger might be to use a pain scale (these are validated) and then analyze the groups based on degrees of pain.

A larger sample size would certainly make the paper stronger, but there was a moderate correlation of pain with talar bone edema.

I agree with some of the authors conclusions, that talar edema may represent an overuse injury yet not be a stress fracture and that understanding the correlation between bone edema and pain, and when to restrict a dancer’s activities, are important questions to be answered.

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

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

Discretionary Revisions (which the author can choose to ignore)

line 81: have been shown
line 93: tendinous and cartilage injuries
line 99: associated with pain in all cases
131: in prior reports
135: sur les pointes or on pointe (en pointe is incorrect French)
232: assess the association
321: and was in most cases
339: should suggest to the sports

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of importance in its field

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

**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