Reviewer's report

Title: Arthroscopic guided biopsy and radiofrequency thermoablation of a benign neoplasm of the tibial spines area: a treatment option

Version: 3 Date: 9 November 2011

Reviewer: Kimberly Templeton

Reviewer's report:

All of my suggestions are major, compulsory revisions. This article does not need statistical analysis. I am unable to comment on next steps until seeing the authors response to the major, compulsory revisions. I have no conflict of interest. KT.

Revisions:

1. in the abstract, the authors mention that standard treatment of a lesion in this location could contaminate the neurovascular bundle. This would be extremely unusual and would only occur if the posterior capsule of the knee is violated. I would recommend removing this statement.

2. the complication of violation of the joint by the fluid pressure needs to be mentioned in the abstract.

3. in the case report section, 3rd paragraph, the authors need to discuss why the recommendation was made to this patient to undergo this procedure. They state elsewhere in the article that this procedure has a decreased risk of cartilage damage. why? what is the evidence to support this?

4. in the case report, paragraph 2, the authors state that the patient is in "good condition". This needs to be expanded; is he having any pain? what is his range of motion? does he have any activity limitations? In this same paragraph, the authors state that the patient is disease-free. However, in reviewing the CT and MRI provided, the area of the lesion looks larger after treatment. This may be an effect of treatment, but this finding, and any potential ramifications of this, needs to be discussed.

5. in technical note, first paragraph: were the portals inferior or superior?

6. was a frozen section obtained prior to proceeding with the RF?

7. the authors state that the primary advantage of this procedure is that the joint isn't opened and thereby contaminated by tumor. However, the complication identified with breach of the articular cartilage does just that. What do the authors think will be the long-term effects of this complication? Is there risk of recurrence due to joint contamination? If this complication occurs again, would that indicate that this procedure is not justified on the grounds of joint contamination?

8. What do the authors propose that the surgeon monitor in regard to the articular cartilage surface? What changes would be noted? If changes are noted, how can they be stopped or reversed?
9. In the discussion section, paragraph 3: the authors state that the advantage of this procedure is monitoring of the cartilage; yet, despite that, the cartilage was still damaged; is this still a valid reason for suggesting this procedure?

10. In the discussion section, paragraph 5: the authors need to mention that this can be performed where RF equipment/instruments, as well as arthroscopic instruments, are available.

11. In the discussion section, last paragraph: the authors state that this can be performed by surgeons with varying levels of expertise. However, if the primary advantage of this procedure is monitoring the articular cartilage, doesn’t the surgeon need to have enough experience to note if there are changes (again, what changes are to be assessed for?) and what to do about them?

12. Is there an initial size of the lesion that the authors would suggest would be the upper limit of what could be treated? Would larger lesions be less sensitive or need additional treatments? With the increase in size of the involved area noted on CT and MRI after the invention described in this case, would there be an upper limit that would make the bone at risk of fracture/collapse after the treatment?

**Statistical review:** No, the manuscript does not need to be seen by a statistician.