Reviewer's report

Title: Prevalence of mediopatellar plica in subjects with knee pain and the association with patellofemoral cartilage damage and bone marrow lesions: Data from the Joints on Glucosamine Study

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Reviewer: Angel Checa

Reviewer's report:

I think the manuscript entitle: “Prevalence of mediopatellar plica in subjects with knee pain and the association with patellofemoral cartilage damage and bone marrow lesions: Data from the joints on glucosamine study” is a nice study. Li Xu and colleagues provided very interesting data about mediopatellar plica using MRI.

In 1980’s mediopatellar plica was a very popular and hot topic because its capability to generate internal derangement of the knee. However, today some physicians, even orthopaedics surgeons, do not pay too much attention to this structure as an important cause of anterior knee pain and chondral damage. This is probably worse among rheumatologists who overlook the mediopatellar plica in clinical practice.

The study of Xu and colleagues, as authors mentioned, is the only about MRI approaching BMLs, cartilage damage and different subtypes of mediopatellar plica. My concern, however, is the same classification of Sakakibara used by arthroscopy, is also used here. By arthroscopy the appreciation of femoral contact by the mediopatellar plica could be a little different since you have to distend the knee with a lot of fluid. Perhaps, this is the reason that small remnants (type A) do not contact medial femoral condyle and this structure was considered in the past by many authors as a “harmless” remnant. For that reason I think might be interesting is Li Xu and colleagues shows some data (table) correlating the “chondropathy” and bone changes and the type of mediopatellar plica, A, B, or C. In the figure 4 authors showed a plica type A with BML in the anterior medial femur. This might change orthopedics’ perspective in the future, with a new therapeutic implication. Like a “prophylactic” resection of apparent very small and innocuous remnant. Many year ago in an European congress of arthroscopy and surgery of the knee a study showed that mediopatellar plica Type A can only generate pain and chondral damage is it appear fenestrate by a trauma, which increases the area and the contact with the femoral condyle.

Level of interest: An article of outstanding merit and interest in its field

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