Reviewer's report

Title: Clinical and radiological outcomes after management of traumatic knee dislocation by open single stage complete reconstruction

Version: 3 Date: 21 November 2009

Reviewer: peter kloen

Reviewer's report:

General:
This is a large series of a complex and rare injury. This could provide the literature with useful information as a "baseline" of what patients can expect if treated by an experienced surgeon for a devastating injury. The authors did a great job in getting a large number of data at long term follow up. As is too be expected, a retrospective study like this will suffer from the obvious problems (retrospective, small numbers, no control group etc.). Even so, it seems that despite these shortcomings this paper -with some editing- can be of interest for the reader.

Abstract:
As this was retrospective how were pre-op scores (e.g. Tegner) determined?

Background:
What do they mean with "radiological investigation regularly underestimates the injury"? Was MRI performed?
Was this a single surgeon series? If not, how many surgeons?
Was the technique "consistent" during the 26 year period? Really?

Methods:
48 patients were treated within 2 weeks, 20 later than 2 weeks. How much later than 2 weeks for that group? What was the reason for delay?
Informed consent was obtained already in 1980? Consent for what?

Surgical technique:
Page 6: Specify "peripheral structures"
"Touch weight bearing" must be "toe touch weightbearing"?
Follow up: "Independent senior orthopedic resident". It seems one can delete independent. He "had not been involved in the index surgery" is enough information.
The "Cooper test" was not listed in the abstract/introduction.

Results:
Page 9: Do the authors think the extension deficit (in 19%) is due to harvesting the grafts, impingement, arthrofibrosis or other reasons?

Complications and reoperations:

page 10: Is "insufficient result" a good term? More often it is something like excellent/good/fair/poor.

Is TKR at 17 resp. 23 yr after injury to be considered as a reoperation?

Discussion:

The discussion is too long.

page 17: The negative effect of smoking should not be explained as a probably related to microvascul arity. No data are presented in this study on microvascul arity.

The authors advocate to operate "within 40 days". That is not based on their data. There were not two groups (<40 and >40 days).

It is difficult to the scientific merits of this manuscript. It is likely a personal series of a very experienced surgeon. Their results might be hard to repeat for less experienced surgeons. This is important and it might be good to mention it in the paper. This type of surgery is not to be taken too lightly.

Are there differences in the literature comparing open vs. arthroscopic repair?

Are there outcome studies available on non-operative treatment of these injuries using similar outcome scores? If so, can they compare with these data?

Lastly, this group obviously preferred the open technique. I would think that with the arthroscopic reconstruction (or combined arthroscopic for ACL/PCL and open for LCL/MCL/peripheral) the results could even improve. Please provide a clear recommendation for treatment at the end of the conclusion, i.e. do they think it should only be done "open"?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.