Reviewer’s report

Title: A Case of Bilateral Revision Total Knee Arthroplasty Using Distal Femoral Allograft-Prosthesis Composite and Femoral Head Allografting at the Tibial site with a Varus-valgus Constrained Prosthesis: Ten-year Follow up

Version: 0 Date: 08 Dec 2017

Reviewer: Naoki Nakano

Reviewer's report:
Many thanks indeed for letting me review your manuscript. I have read your case report with great interest.

This is a case of the use of allograft-prosthesis composite and structural femoral head allograft in the bilateral reconstruction of large femoral and tibial uncontained defects during revision total knee arthroplasty. It is well written as a case report but all in all, I assume the original manuscript should be largely improved before acceptance by the Journal.

Main issue is, there looks to be a lack of clinical relevance in this case report. You may insist bilateral case is rare but you have not discussed its significance in the manuscript. Also, discussion is rather dull and I'm afraid readers may not find it interesting. In my understanding the majority of knee surgeons prefer to use metal augmentation or rotational hinge as well as giant prosthesis, not APC or other. You should clearly describe the superiority of APC over these options before recommending to use APC.

Line 96
'No study has reported the use of distal femoral APC in bilateral RTKA' - it's not appealing to readers. Do you have any interesting 'stories' regarding this bilateral case?
The patient is in satisfactory condition and had a in normal daily life.' - As a scientific report you should include some objective insights rather not mentioning it was just right, i.e. assessing the patient using a scoring system like KSS or OKS.

'Bone loss after RTKA results from…' - Bone loss appears to be found during RTKA not after RTKA. It may lead readers' misconception.

'A few studies have also reported using either massive distal femoral and proximal tibial allografts for large defect reconstruction in RTKA.' - I don't understand this sentence. Please clarify.

'APC offer superior healing capacity compared to host bone because of less rotational stress.' - It should be written as 'APC offers great healing capacity in terms of attaching to the host bone, which contributes to avoid massive rotational stress between them.'

'Moreover, stability is enhanced by attaching the lateral ligament of allograft bone to the remaining epicondylar bone, resulting in less limitation of ROM than with a rotating hinge.' - Is that really? You should add some references at least to justify this statement.

Your discussion is somewhat irrelevant for this case report. As mentioned above, you should rather discuss the strength and weakness of the technique in comparison with other therapeutic options referencing other literature.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:
Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.
I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Do you want to get recognition for reviewing this manuscript?

Add a record of this review to track and showcase your reviewing expertise across the world’s journals. Signing up is quick, easy and free!

No