Reviewer’s report

Title: Radiographic and clinical outcome of lumbar lateral interbody fusion for extreme lumbar spinal stenosis of Schizas grade D: a retrospective study

Version: 0 Date: 28 Feb 2020

Reviewer: Nan Wu

Reviewer's report:

In this manuscript, the authors analyzed the radiographic and clinical outcome of LLIF for extreme lumbar spinal stenosis of Schizas grade D. They concluded that the radiographic decompression effect of LLIF for Schizas grade D segments were comparable with that of other grades. Posterior decompression was necessary for LLIF to achieve a satisfactory clinical outcome for extreme lumbar spinal stenosis of Schizas grade D. My comments are provided below:

Major comments:

The authors mentioned that they compared the radiographic outcomes of LLIF for stenosis of Schizas grades A, B, C and D. How about the results of A, B and C? Please clarify.

Usually Schizas A and B patients do not need surgical intervention, the authors should state what are the indications for Schizas A and B patients underwent surgical treatment.

My major concern for the design of the study is how were the patients selected as the candidate for second stage procedure? To me, the surgeon's preference is not a criteria.

This is a preliminary study based on short term (6 months) follow-up data, the authors should state this as one of the limitations.

Is there any complication related to the implant?

I strongly recommend the authors tune down the stating of 'first to evaluate the indirect neural decompression effect in patients with extreme lumbar spinal stenosis', as it's hard to evaluate whether there is any similar study reported or going on.

Minor comments:

Page 5, Line 103, 'indexes' should be 'index'.

Page 2, Line 40: "the average changes of disc height" needs to be 'the average change of disc height'.
Page 6, Line 96-97: "In grade D, in addition to no rootlets being recognizable there is no epidural fat posteriorly" needs a comma before "there is".

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.

Yes

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.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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