Reviewer's report

Title: Reinstrumentation for Rapid Curve Progression After Implant Removal Following Posterior Instrumented Fusion in Adolescent Idiopathic Scoliosis: A Case Report

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Reviewer: Rene Marten Castelein

Reviewer's report:

1. Major Compulsary Revisions: There are three concerns that I think the authors should be able to clarify:
   a. Were the complaints caused by the hardware, or by a pseudo arthrosis that can be presumed on the course of the story? Rarely, metal in that area is so prominent that it in itself causes problems. It is well known that in many cases, where metal is held responsible for complaints, removal of the metal does not solve the problem.
   b. Is this really idiopathic scoliosis? The course of the disease seems atypical, and all the lateral X-Rays show more thoracic kyphosis than I normally see.
   b. The deterioration is not so surprising if there is evident pseudo arthrosis. That that was not discovered at the time of hardware removal is not surprising either, since at least I do not expose down to the bone in the whole area when I remove the metal for whatever reason. It is possible that there were more than just the "cracks" that are described, and that subsequently the spine had a chance to fuse in the deteriorated position after removal of the metal, thus not showing the pseudo arthrosis clearly at the time of the revision fusion operation, when the bone HAD to be exposed thoroughly.

The authors seem to have a lot of experience with removal of hardware after spine surgery, they probably have many cases that did not end like this one. In that case there may not be much of a lesson to be learned from an exception rather than the rule. We all know that we have to watch for progression of the curve after a removal procedure, if deterioration occurs it usually means that there was an undetected pseudo.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Declaration of competing interests:

I receive unrestricted research support and speakers fee for educational meetings.