

Comments to “Utility of Patient-Specific Rod Instrumentation in Deformity Correction: Single Institution Experience” By Sadrameli et al.

Federico Solla¹⁾, Cédric Y. Barrey²⁾, Virginie Rampal¹⁾ and Vincent Fièrè³⁾

1) Orthopaedic and Scoliosis Surgery Unit, Lenval Hospital, Nice, France

2) Spine Unit, University Hospitals of Lyon, Bron, France

3) Spinal Unit, Santy Orthopaedic Center & Mermoz Hospital Ramsay, Lyon, France

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Dear Editor:

We completely agree with Sadrameli et al.¹⁾ regarding the utility of patient-specific rods (PSR) in surgery for spinal deformities²⁻⁵⁾. We find it useful to share the results of this innovative procedure during early follow-up that can contribute to the advancement in this field of spine surgery²⁻⁵⁾.

To our knowledge, in addition to the literature cited, two other studies on PSR in adults have been published in indexed journals by two French teams with radiologic results at 1 year of follow-up: one about 60 patients who underwent spinopelvic fusion for various conditions⁵⁾, and the second, which involved 86 adults with spinal deformity⁶⁾.

We commend Sadrameli et al, who compared their PSR patients with a matched series of patients, who underwent spine fusion with conventional rods, whereas the other studies report a series of PSR without comparison. We also believe it is worthy and honest to release nonsignificant comparison. The authors suggest the small number of subjects can partially explain this. A post-hoc power analysis should be performed to better appreciate the significance of these results and to lay the foundations of a prospective comparative study with a calculated number of subjects.

Radiological results of this paper are difficult to compare with previous literature, as both the baseline parameters and the criteria for good results were different. However, consistent with previous series, sagittal results were generally good or excellent^{5,6)}. All spinopelvic parameters significantly improved from preoperative radiography to postoperative radiography, and were similar between the surgical plan and

actual performed alignment. Interestingly, pelvic slope and C7 Sagittal Vertical Axis were better corrected than in previous studies^{5,6)}. A potential explanation is that preoperative imbalance was less important than in previous reports.

Other publications from the same teams are expected, whose practices already take account of the lessons learned from preliminary experience. Wouldn't we perform a multi-center study?

Conflicts of Interest:

FS received funding for congresses from SpineEst, Medicea Int. and Euros

VF is a paid consultants for Medicea Int. and Clariance and receives royalties from Medicea Int. and Clariance

VR has no conflicts to declare

CYB received funding for congresses from Medtronic, Medicea Int., Implanet, Ethicon and Noraker.

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Corresponding author: Federico Solla, fedesolla@hotmail.com

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