Reviewer’s report

Title: Measurement of intraoperative Blood loss in different Stages of Scoliosis Surgery- A Prospective Study in 44 Patients

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Reviewer: frank schwab

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The subject of blood loss is clearly important. The authors set out to study the phases of surgery and EBL. The intent is to more closely understand parameters tied to EBL and assess which portions of surgery differentiate pediatric scoliosis patients. Unfortunately, this study compares very different populations of patients given the varied types of deformities and medical co-morbidities.

some points to consider:

1. stiffness of the curves impacts complexity of screw placement this will impact particularly the EBL during screw placement and correction portions of surgery as this paper shows.
2. BMI and soft tissue distribution may be important but was not studies. This may have an impact given soft tissue bleeding and difficulty in retraction/exposure and closing
3. iliac fixation and exact levels fused were not compared. There is a big difference between fusing 10 thoracic levels vs. 10 levels extending down to the pelvis with iliac anchorage.
4. BMD may be important regarding EBL but can't that be easily solved with floseal injection into screw holes as is commonly done at many institutions?
5. I am not certain one can conclude that BMD is the critical link to EBL given that the populations are so different in many ways: pathology, deformity stiffness, systemic factors of paralytic patients etc…
6. the conclusion that bone density should be improve pre-op is of limited value given that in non-ambulatory NM/paralytic deformities bone density is very difficult to change.

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 have no competing interests.