

# We Read With Great Interest the Recent Article by Juan P. Sardi et al Entitled “Opioid Use Prior to Adult Spine Deformity Correction Surgery is Associated with Worse Pre- and Postoperative Back Pain and Prolonged Opioid Demands”

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Cangxu Zhang, PhD<sup>1</sup>  and Shicheng Xie, PhD<sup>2</sup> 

Dear Editor,

We read with great interest the recent article by Juan P. Sardi et al<sup>1</sup> entitled “Opioid Use Prior to Adult Spine Deformity Correction Surgery is Associated With Worse Pre- and Postoperative Back Pain and Prolonged Opioid Demands”.<sup>1</sup> They retrospectively extracted data that were prospectively collected to gather patient demographic data, surgical information, and clinical characteristics. The primary objectives of this study were to assess the effects of pre-operative opioid use on patient-reported pain scores at baseline and at 2 years after spine deformity correction surgery. It is concluded that clear differences in opioid use internationally, with much lower rates among patients from Asia, preoperative opioid use was strongly associated with significantly more back pain at baseline. Our panel of professional peers have some suggestions and questions they would like to share with the authors after reading their excellent and valuable articles:

First, the patients included should be similar in important aspects. Prospective cohort studies need to specify exposure factors, and the more accurate the screening criteria, the more accurate the results will be.<sup>2</sup> Questions about the inclusion of surgical indicators in the article: whether the surgical site and mode of the spine of patients undergoing surgical treatment are close to each other; cervical problems will involve the face and shoulder and neck; thoracic problems will also involve visceral pain. Therefore, I would like to ask if the author can briefly state whether the patient underwent surgery only for the lumbar spine, the method and location of the surgery (different regions vary), and whether there are patients with other areas such as shoulder pain.

Second, opioid use In the change in pain NRS score at 2-year follow-up, patients who do not apply opioids may use

other drugs, which needs to be considered, and statistical tests can be further compared to obtain more precise conclusions. The SRS-22 questionnaire version varies from region to region. Is the SRS-22 questionnaire modified for each region used<sup>3</sup>?

In addition, the proportion of patients undergoing spinal surgery for back pain varies by region. In developing countries, many people with spinal problems do not seek medical attention because of financial problems, so patients who meet the indicators are more severely ill than patients in developed countries. The relatively low rate of drug use may be the reason for the difference in drug use affecting different regions.<sup>4</sup> Of course, the study lacked the measurement of drugs and relied on patient questionnaires, so there is potential for recall bias. It is important as the first report to compare regional differences in opioid use before and after spinal surgery in North American, European, and Asian populations, and we want it to be better.

Finally, we thank Juan P. Sardi et al for contributions to the field of spinal deformity surgery, and we hope that our comments will help readers to better read this article.

<sup>1</sup> Jining Medical University of Clinical Medicine, Jining, China

<sup>2</sup> Affiliated Hospital of Jining Medical College, Jining, China

#### Corresponding Author:

Shicheng Xie, Affiliated Hospital of Jining Medical University, 129 Hehua Road, Taibai Lake New District, Jining 272007, Shandong, People's Republic of China.

Email: [xiesc0609@163.com](mailto:xiesc0609@163.com)



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**ORCID iDs**

Cangxu Zhang  <https://orcid.org/0009-0009-9084-3338>

Shicheng Xie  <https://orcid.org/0000-0001-9991-6091>

**Data Availability Statement**

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

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