## LETTER TO THE EDITOR



## To cross or not to cross pectus bars: is this already a dilemma?

Miguel Lia Tedde<sup>1</sup>

Received: 1 December 2021 / Accepted: 9 March 2022 / Published online: 13 March 2022 © The Author(s), under exclusive licence to The Japanese Association for Thoracic Surgery 2022

There is no doubt that MIRPE has become the standard technique for the surgical treatment of *pectus excavatum*. Confirming this trend, it is possible to notice that more and more surgeons are using two bars to perform the procedure. Even though, the literature is still poor in the analysis of these cases treated with more than one metal bar. In addition, scarce are works comparing the use of two bars in a crossed or parallel position [1]. In this sense, the study published by Sayan et al. [2] in which the authors aim to fill part of this gap by analyzing their experience in MIRPE cases performed with two metal bars is of great importance. Despite that some points deserve commentaries.

Although the authors have analyzed a relatively large number (276) of cases in which they used two metal bars, the number of cases with crossed bars (51) represents only 18.4% of their experience. Furthermore, the inclusion criteria for the use of crossed bars are: a) banana-shaped sternum (which we prefer to call "C" sternum) and b) short sternum, but these criteria are not defined. For instance, how much curvature does the sternum have to be in order to be classified as a "C" sternum? And what is the length limit to classify as "short sternum"?

Since this is an observational study, there are other information that could be of interest: the bars used are made of steel or titanium? In which side the effusion occurred? How late in the post-operative period?

In the conclusion, the authors stated that the use of metal bars in a cross-position "can also cause serous pleural effusion that will require additional surgical intervention, increasing the frequency of hospital readmissions". Despite the analysis of the data showed statistical significance, in our point of view that statement seems premature considering that there is no confirmed theory that can explain this finding. Furthermore, we are concerned that their conclusion, and even the title of their publication, may discourage the use of crossbars, a valuable tool mainly when the chest wall defect has some specific characteristics [1].

Once again, we want to congratulate Sayan et al. for their important contribution in this relevant topic of operating MIRPE with more than one bar.

## References

- Moon DH, Park CH, Moon MH, Park HJ, Lee S. The effectiveness of double-bar correction for pectus excavatum: a comparison between the parallel bar and cross-bar techniques. PLoS ONE. 2020;15(9):e0238539. https://doi.org/10.1371/journal.pone.02385 39.eCollection2020.
- Sayan B, Bekiroglu N, Yuksel M. Pectus cross bars increase hospital readmission rates due to serous pleural effusion. Gen Thorac Cardiovasc Surg. 2021. https://doi.org/10.1007/ s11748-021-01732-z.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Miguel Lia Tedde tedde@usp.br

<sup>&</sup>lt;sup>1</sup> Thoracic Surgery Department, Faculdade de Medicina, Instituto Do Coracao (InCor), Universidade de, Sao Paulo, SP, Brazil