Tucked in or tuckered out? Pectus excavatum and sleep

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Although it is the most common congenital chest anomaly, the application of surgery in the care of the adult patient with pectus excavatum (PE) remains poorly understood. Moreover, a basic understanding of PE in the medical community in general is quite poor. I frequently see patients who have been told that their condition is "only cosmetic" and that there are no options for repair. More frustrating are the patients who pursue a second opinion after being told by a surgeon that they are not candidates when that decision seems more a function of the surgeon’s experience than the patient’s objective assessment. Fortunately, the Internet and social media have provided new outlets for patients to educate themselves and pursue care with experienced clinicians.

In this issue of the Journal, Cheng and colleagues\(^1\) add to the growing data on PE and reinforce the finding that patients with PE have poorer quality of life than the general population.\(^2\) Furthermore, they are the first to demonstrate poorer sleep quality than patients without PE. Notable as well is the improvement in sleep quality after PE repair using the Pittsburgh Sleep Quality Index. This unique finding provides further support for consideration of surgical intervention for patients with symptomatic PE. In an era of tightening restrictions by payers, this also provides an objective measure that may be used by clinicians to support surgical intervention.

The authors interestingly conclude that the cause of this improvement, after intervention, is due to psychological factors and not physiologic. This is primarily due to a lack of correlation between "total sleep quality and all variables including the severity of the pectus excavatum." I would suggest, however, that this may also demonstrate our lack of understanding of pectus physiology and the relative crudeness of the Haller index as a measure of severity. It has been previously shown that the Haller index has an indirect relationship with pulmonary function testing.\(^3\) It is entirely plausible that surgical correction may result in an incremental improvement in physiologic function, which results in palliation of symptoms. That incremental improvement may, however, not be enough to return the more severely affected patients to normal physiologic parameters, thus explaining a lack of correlation.

Clearly what is required at this point are more in-depth studies of the basic pathophysiology of PE in the adult patient. We require more sophisticated, physiologically based tool for measurement to determine which patients will benefit from surgical intervention. The first step is educating the medical community that PE is more than just a cosmetic problem.

References