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http://dx.doi.org/JBJS.22.01199

February 15, 2023

Curb your enthusiasm until longer followup and more vigorous methodology

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I refer to Hwang et al's study (1) on lumbar stenosis with or without spondylolisthesis undergoing single-level lumbar spine surgery compared with those having non-operative treatment with respect to patient mortality, resource utilization, and health-care payments over the first 2 years following surgery and Tobert's accompanying commentary (2).

I agree with Tobert's cautious welcome of new information regarding the role of surgery on patients with these diagnoses.

I identify with the critics predicted by Tobert as having reservations over Hwang et al's methodology which cannot adequately address "possible unmeasured confounding and inaccuracies of the ICD and CPT coding used to create the cohorts". Despite patient mortality being one of the primary end-point, the study authors admitted that patients receiving nonsurgical treatment had "a modestly higher baseline risk of 2-year mortality" compared to those receiving surgery after cohort matching. They also acknowledged "the significant differences in 8 chronic conditions between the surgical and nonsurgical groups suggest that, all other factors being similar, patients with multiple chronic conditions had a higher mortality rate and were thus less likely to undergo surgical treatment."

Nevertheless the study indicates "surgical treatment was associated with 28% lower 2-year mortality compared with nonsurgically treated matched controls, despite having similar baseline health status."
The other issue not directly addressed is lumbar adjacent segment degeneration after spinal fusion surgery with at least a quarter with spinal fusion is reported to have this condition in studies with at least 24 months followup, the enthusiasm related to potential monetary "savings" may be wiped out by subsequent treatment required to address symptoms from this condition. The question is then at what point the short-term surgical fix is simply not worth the long-term angst?

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References

1. 10.2106/JBJS.22.00181
2. 10.2106/JBJS.22.01199
3. 10.1016/j.spinee.2020.05.100

Conflict of Interest: None Declared