

# Letter to the Editor

## Letter to the Editor: Minimally Invasive Surgical Approaches in the Management of Tuberculosis of the Thoracic and Lumbar Spine

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To the editor,

We have read the study by Garg and Vohra [3] with great interest. In their study, the authors reviewed randomized controlled trials and compared the outcome of chemotherapy alone versus a combination of surgery and chemotherapy in patients with spinal tuberculosis [3]. Although the objective of the study is noteworthy, we would like to offer additional points that should be discussed with patients

with spinal tuberculosis during the decision-making and therapy planning processes.

Spinal tuberculosis is the most common form of tuberculosis lesion [1, 6, 8]. Triple-drug antituberculous chemotherapy can play a main role in treating tuberculosis [5] if the lesion is without complications and limited to the vertebrae. Previously published studies [2, 7] have reported worsening of existing symptoms or the appearance of new lesions in patients who

initially responded well to antituberculous therapy. However, with proper indications, surgical procedures are considered superior regarding the prevention of neurological deterioration, maintenance of stability, and early recovery [2, 4–8].

Currently, there are few widely accepted classification systems based on objective data that can provide guidance in selecting the proper treatment approach for patients with spinal tuberculosis. In 2008, Oguz et al. [6] developed a classification system for spinal tuberculosis based on seven clinical and radiological criteria (abscess formation, disc degeneration, vertebral collapse, kyphosis, sagittal index, instability, and neurological problems). This novel classification, called the Gulhane Askeri Tip Akademisi [GATA] classification, also recommends specific techniques for each type.

Per the GATA classification system, spinal tuberculosis is divided into three types: Type I A/B, Type II, and Type III. Contrary to Garg and Vohra, Oguz et al. recommended surgery for Type IB, Type II, and Type III patients with or without neurological deficit (Table 1). Oguz

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(RE: Garg N, Vohra R. Minimally invasive surgical approaches in the management of tuberculosis of the thoracic and lumbar spine. *Clin Orthop Relat Res*. 2014;472:1855–1867.) The authors certify that they, or any member of their immediate families, have no commercial associations (eg, consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

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**Table 1.** GATA classification system [4]

Type	Lesion
Type IA	Lesion found at vertebrae [4]
Type IB	Abscess formation occurs; one or two-level disc degeneration [4]
Type II	Collapse of vertebrae; abscess formation occurs; kyphosis; stable deformity with or without neurologic deficit; sagittal index < 20° [4]
Type III	A more severe vertebral collapse; abscess formation; severe kyphosis; deformity instability with or without neurologic deficit; sagittal index ≥20° [4]

et al. emphasized that if there is a cold abscess (an abscess that lacks the severe inflammation that usually accompanies infection), only antibiotic-analgesic therapy could not prevent the extensive destruction of vertebral bone and disc material. We believe that this classification system can be considered as a practical guide for spinal tuberculosis treatment planning in all countries.

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