



# Thoraco-lumbar vertebral fractures and posterior wall protrusion (PWP)

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Since we have significant expertise in the percutaneous treatment of vertebral fractures, we are well informed about the various works and articles by Venier and his colleagues. Their research on “Armed Kyphoplasty” (1), and more specifically on the stent-screw-assisted internal fixation “SAIF” technique (2) represents a highly interesting approach that could be valuable in the therapeutic management of vertebral fractures, especially those resulting from osteoporosis or neoplastic conditions.

We acknowledge the mis-referencing (3,4) in our Editorial and sincerely apologize to all the authors for any inconvenience caused. The appropriate reference should be Walter *et al.* (5).

This reference (5), cited by Venier *et al.* (1), primarily addresses the potential risk of cement leakage in cases of A3.1 fractures, rather than further displacement of bony fragments in the central canal with posterior wall protrusion (PWP). In fact, only a few studies have focused on PWP as most of them pertain to vertebral fractures with minimal displacements. Venier’s study (1) specifically investigates this aspect and demonstrates that there is no need to hesitate in employing percutaneous treatment even when PWP is present; we fully concur with this conclusion.

In our practice, we have successfully treated numerous patients who exhibited no neurological symptoms and had PWP up to 90% using a stand-alone percutaneous approach without resorting to open surgical techniques and laminectomy. We did not observe any neurological deterioration postoperatively, and in many cases, there has

been progressive restoration of the vertebral canal diameter following the percutaneous approach.

We would like to highlight two crucial points that we believe are significant for future studies in this field:

First, we recommend categorizing vertebral fractures based on their etiology: purely post-traumatic, osteoporotic, or neoplastic. Percutaneous treatment cannot be uniformly applied to all three types. Each represents a distinct pathology, necessitating different indications for percutaneous treatment. Hence, studying a patient series encompassing various fracture types cannot yield robust conclusions.

Second, the Magerl or AOSpine classification (6) should be restricted to purely post-traumatic fractures. These classifications are frequently extended to include osteoporotic or neoplastic fractures. However, it is important to recognize that a burst fracture of type A3.3 (Magerl classification) or A4 (AOSpine classification) resulting from high-kinetic trauma in a 25-year-old cannot be equated with the same fracture in an 80-year-old patient who experienced minor trauma two months ago. Although these fractures share the same classification, their stability and management differ significantly. Comprehensive classifications specific to osteoporotic and neoplastic fractures are available in the literature (6-8).

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