

## Response to: Analysis of Functional and Radiological Outcome Following Lumbar Decompression without Fusion in Patients with Degenerative Lumbar Scoliosis

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Dear Editor,

We appreciate the letter regarding our manuscript entitled "Analysis of the functional and radiological outcomes of lumbar decompression without fusion in patients with degenerative lumbar scoliosis [1]." We are very grateful to the reader for the appreciation of the article. We also feel the concerns raised by the reader are legit.

This was a retrospective analysis of 51 consecutive patients undergoing lumbar decompression for lumbar canal stenosis (LCS) associated with degenerative lumbar scoliosis (DLS). Patients having DLS of more than 10° along with LCS, radiculopathy, and significant claudication undergoing stand-alone lumbar decompression were included in the cohort. This has been described in the methodology. The authors agree that the good outcome with lumbar decompression in the present study was due to mild scoliosis in the cohort. Importantly this study underlines the important fact that good outcomes are persistent in the long term.

In the author's practice, patients having symptomatic LCS with DLS after failed conservative treatment are further considered for lumbar decompression. Patients with DLS are offered deformity correction along with instrumentation only when the back pain is either due to facet arthropathy or fatigue arising because of coronal and sagittal imbalance. All the patient's in this study underwent conventional open lumbar laminectomy along with medial facetectomy. The extent of decompression was decided upon preoperative magnetic resonance imaging as well as the extent of distribution of radicular pain. Whenever a possible attempt was made to preserve the integrity of the facet joint without compromising on neural decompression by performing undercutting of medial facets.

We strongly believe radiological instability is never a true representative of clinical instability of the lumbar spine. This notion is echoed in literature quite often [2-4]. Moreover, patients undergoing lumbar decompression without fusion for LCS sometimes also report on improvement in clinically significant back pain [5,6]. As per the Kirkaldy-Willis hypothesis, a degenerated spine will eventually progress from phase of instability to a phase of auto-stabilization thus making the spinal deformity of less functional consequence. Rustenburg et al. [7] questioned

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the need for instrumentation to avoid instability in patients with DLS.

It is quite important to highlight again that this study does not establish the supremacy of decompression over fusion for a given patient of DLS but reports on the good outcomes of lumbar decompression especially when the symptoms of patient are predominantly related to neural compression and when the spinal deformity is not the main driving force for the symptoms of patients. Plethora of literature exist on the improvement in the quality of life after deformity correction in patients with DLS [8], but health-related quality of life scores underestimate the impact of major complications associated with these surgeries [9]. Hence, one needs to be very careful while selecting an appropriate patient for a particular type of surgery.

We again thank readers to raise these valid and legit questions. The authors would be more than happy to answer further queries if any.

## Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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