Review of: "L4-L5 Anatomy Classification System for Lateral Lumbar Interbody Fusion"

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Potential competing interests: No potential competing interests to declare.

I have reviewed the manuscript, figures, and tables in their entirety. The authors present a retrospective review of L4-L5 level anatomy, in order to create new classification system for lateral lumbar interbody fusion. Overall the study was well conceived and well executed. The manuscript does need some editing.

Major issues

1. The authors divide the three types of L4-L5 anatomy, but they haven`t mention whether the subjects had lumbosacral transitional vertebra. Especially, the type III was commonly on L5/S1 level.

2. The classification was based on the relative position of psoas muscle, vascular and vertebra. In the clinical, what`s the different between type I and type II? The classification seem having weak help for clinical.

3. With OLIF and LLIF technique improved, the lumbar plexus injury had lower incidence than before, and the most important risk factor was the operation of the surgeon. What benefit can be gained from the new classification for the neuroprotection?

4. The classification mainly relies on subjective judgment and lacks objective basis. It`s difficult in clinical application.