

Anatomical Characteristics of the Lumbar Facet Joints and Considerations for Minimally Invasive Spine Surgery

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Introduction

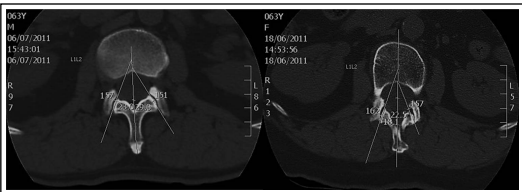
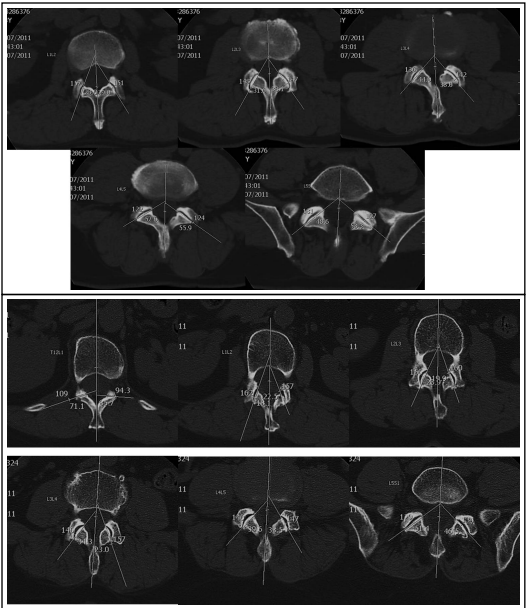
The angular orientation of the lumbar facet joints is important to set anatomic references for surgical planning in MIS procedures. It doesn't exist this data in south-american population.

Methods

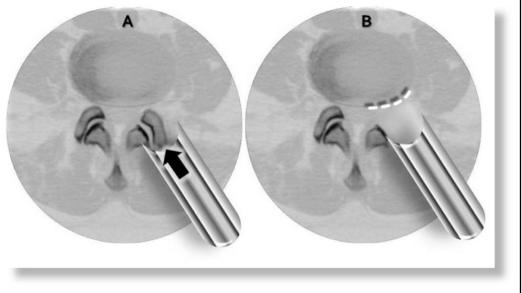
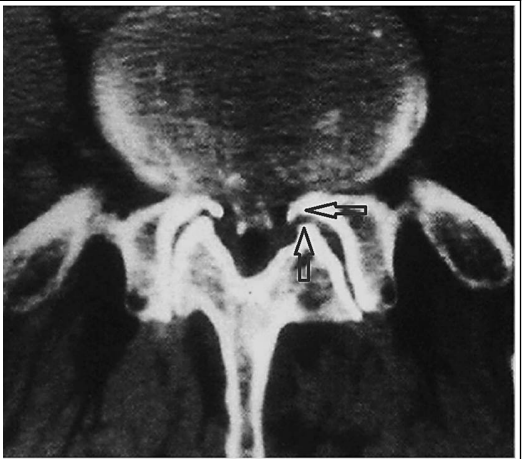
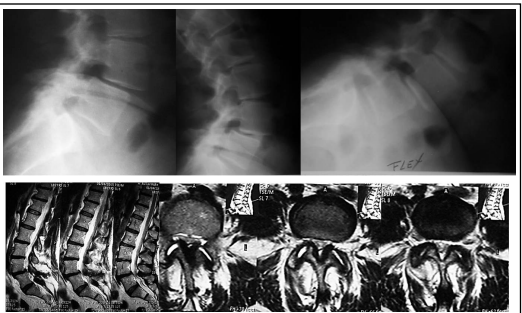
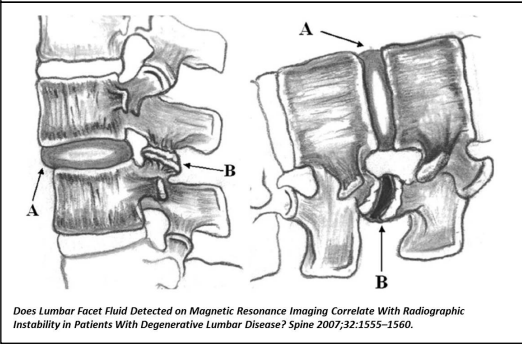
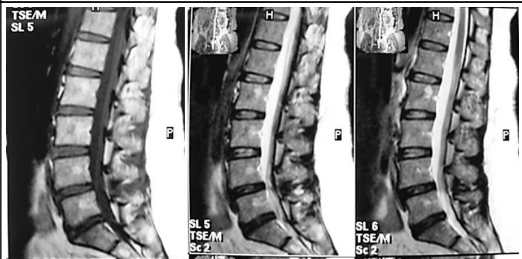
We performed a review of two hundred lumbar computed tomography of a radiological data-base of patients from one university hospital. We explored angles in axial axis of the lumbar facet joints from L1/L2 to L4/L5. We classify the results according to level, age and sex, and analyze the results from the view point of the minimally invasive spine surgeon.

Results

We present the results by level, sex, and age and compared with international papers.

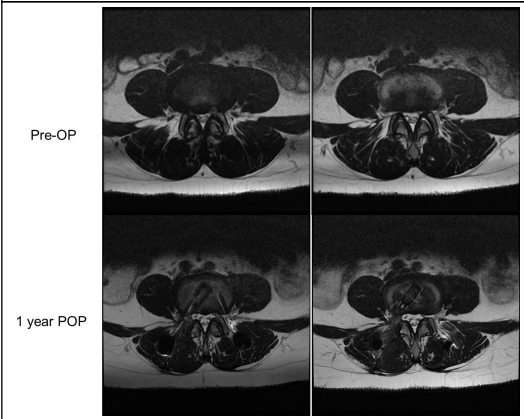


MIS Considerations



Example Case

45 yo, women, lumbar pain, right sciatica and numbness. Right L5 motor deficit. Surgical procedure planned according to images preop was ETLIF with just partial resection of the facet joint (superior L5 right facet resection). Symptoms resolved postop:



Conclusions

The angular orientation of lumbar facet joints is variable from L1/L2 to L4/L5, and this is important for surgical planning for classic and minimally invasive procedures. With the anatomic facet features, in most cases of MIS TLIF is enough to resect only the facet of the low er vertebra to obtain neural decompression. Our findings are important for the spinal surgeons in Latin America because of the similar phenotype in our countries.