

Oral presentation

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## Can radiographic measurements of degenerative lumbar scoliosis predict clinical symptoms?

Avraam Ploumis\*, Hong Liu, Amir Mehbod and Ensor Transfeldt

Address: Twin Cities Spine Center, Minneapolis, MN, USA

\* Corresponding author

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### Background

Sagittal alignment is more critical than coronal curve magnitude in clinical presentation of patients with adult deformity.

### Purpose

To evaluate the radiographic parameters of patients with degenerative adult scoliosis and to correlate them with functional scores.

### Methods

Radiographic analysis of 56 patients with degenerative lumbar scoliosis was performed in anteroposterior and lateral 36-inch standing radiographs. Measurements included curve type, curve location, curve magnitude, coronal balance, sagittal balance, and rotatoryolisthesis. Clinical functional results were measured with Oswestry disability index and SF-36 form. Correlation between clinical and radiographic results was calculated.

### Results

Patients with positive sagittal imbalance and rotatoryolisthesis >grade I demonstrated poorer functional results. Patients with coronal imbalance less than 4 cm did not affect their functional outcomes. Patients with lumbar major curves experienced worse symptomatology than those with thoracolumbar major curves.

### Conclusion

Positive sagittal imbalance and moderate to severe rotatoryolisthesis in the lumbar curves are important radiographic parameters which may correlate to degree of

symptomatology in adult patients with degenerative scoliosis. Treatment of these patients should focus on improvement of aforementioned parameters.

### References

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