E-Poster

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Focused Spine: Comparative Analysis of Radiography and Spinal Mouse Based on a Study of 20 Cases

Topic: Diagnosis

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BACKGROUND

Radiological measurement has been accepted as the gold standard for evaluating scoliosis for many years. However, exposure of children to X-ray constitutes a major limitation of the radiological methods. Spinal Mouse (SM) is a safe, practical and easy to perform measurement of curvature in scoliosis, but its validity and reliability have not been investigated. The aim of this study was to investigate the validity and reliability of Cobb angle and SM measurements in children with adolescent idiopathic scoliosis (AIS).

METHODS

Twenty AIS patients were included in the study. The mean age of the patients was 14.4 years (9-18 years). Frontal plane curvatures were assessed by SM and results were compared with radiological measurements.

RESULTS

A total of 20 AIS patients aged 16± 6.89 years were included in the study. Most study subjects were students. There were 13 (82.4 %) females and 7 (17.6%) males. The curvature deformity was thoracal in 2 (3.9%), and thoracolumbar in 18 (96.1%). The deformity was towards the left in 8 (43.1%) and the right in 12 (56.9%).

We found a very good correlation between Cobb angle measurements and SM evaluation, demonstrating the validity of SM as an alternative method that can be reliably used in clinical practice.

CONCLUSION

We conclude that SM can be used for research and patient follow-up in the clinic as a safe, reliable, quick, and easy to use method with no side effects although it cannot be the only factor to consider when determining the treatment plan of AIS patients.

Statement of Disclosures

None

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