

Oral presentation

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A retrospective study of twenty-three adults treated for scoliosis using the Spinecor Orthosis

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Objective

To determine if non-surgical treatment using the Spinecor brace can effectively reduce adult scoliosis curvature magnitude.

Study design

Twenty-three adults between the ages eighteen and sixty-five years, seeking treatment for adolescent onset idiopathic scoliosis (AIS) were fitted with the Spinecor Orthosis [1] after being exposed to an anterior-posterior (AP) full spine and lateral full spine radiograph, with a minimum of three months between exposures and a maximum of one year. Measurements of the radiographs were performed using a digital inclinometer in order to reduce error and all projections were exposed without the orthosis.

Results

Patients were separated into three groups based on curvature location: Thoracic (T), Thoracolumbar (TL) and Lumbar (L). T-tests were performed using the initial and follow-up Cobb measurements of AP radiographs for each of the three groups. The maximum (T) reduced from 94 degrees to 77 degrees (-12.2%) following a minimum of three months of treatment. The maximum (TL) measurement reduced from 31 degrees to 23 degrees (-13.4%), and the (L) minimum reduced from 17 degrees to 11.1 degrees (-15.3%). The patients in the "Thoracic" group (n = 20) had a mean average change of -5.27 degrees. The

"Thoracolumbar" group (n = 3) had a mean average change of -6.0 degrees. The Lumbar group (n = 15) had a mean average change of -4.40 degrees.

Conclusion

These findings suggest the use of a flexible strapping orthosis (Spinecor) is an effective tool in the management of adult scoliosis. Long term studies are necessary to determine the sustainability of these early positive results.

References

1. Coillard C, Leroux MA, Badeaux J, Rivard CH: **SPINECOR: a new therapeutic approach for idiopathic scoliosis.** *Stud Health Technol Inform* 2002, **88**:215-217.