

Oral presentation

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Effectiveness of the SpineCor brace based on the new standardized criteria proposed by the Scoliosis Research Society for adolescent idiopathic scoliosis

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Objective

To evaluate the effectiveness of the Dynamic SpineCor brace [1] for adolescent idiopathic scoliosis (AIS).

Study design

From 1993 to 2006, 493 patients were treated using the SpineCor brace. Of these patients, 249 subjects fitted the criteria for inclusion and seventy-nine were still actively being treated. Ultimately, 170 patients have a definitive outcome. Assessment of brace effectiveness included the following criteria: 1) percentage of patients who have five degrees (Cobb angle) or less curve progression and the percentage of patients who have six degrees or more progression; 2) percentage of patients for whom surgery was recommended or was carried out, before skeletal maturity; 3) percentage of patients with curves exceeding 45 degrees at maturity (end of treatment); and 4) two years' follow-up beyond maturity to determine the percentage of patients who subsequently underwent surgery.

Results

Successful treatment (correction >5 degrees or stabilization \pm 5 degrees) was achieved in 101 of the 170 patients (59.4%) from the time of the fitting of the SpineCor brace to the point at which it was discontinued. Thirty-nine immature patients (22.9%) required surgical fusion while

receiving treatment. Two patients out of 170 (1.2%) had curves exceeding 45 degrees at maturity.

Conclusion

The SpineCor brace is effective for the treatment of AIS. Moreover, positive outcomes for 45 patients out of 47 (95.7%) treated with the SpineCor brace were maintained after two years.

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.