

Oral presentation

## Initial results of SpineCor treatment of Adolescent Idiopathic Scoliosis in Seville, Spain

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### Objective

The objective of this study was to determine the effectiveness of the SpineCor brace in patients with adolescent idiopathic scoliosis treated in Seville, Spain.

### Background

The SpineCor brace is used at St. Justine Children's Hospital in Montréal. Their results claim that SpineCor is an effective treatment for AIS. We chose to study the effect of this brace on our patients and see if it was similar to the Montreal results.

### Methods

Thirty seven patients were treated using the SpineCor Brace in Seville. Of the 37, 33 patients met criteria of the SpineCor international multicenter study treatment protocol. These patients were still under treatment and had not yet achieved a definitive outcome (two years follow-up post brace treatment). The girls were premenarchal or less than 1 year postmenarchal. Effectiveness was looked at using the following parameters: (1) a percentage of patients with an initial Cobb angle reduction of 5 degrees or greater; (2) percentage of patients with an initial Cobb angle increase or decrease of less than 5 degrees; (3) percentage of patients with an initial Cobb increase of 5 degrees or greater; (4) the number of cases progressing to require surgery or undergone surgery.

### Results

At the end of the first year, successful treatment (correction > 5 degrees, or stabilization +/- 5 degrees) was

achieved in 32 of the 33 patients studied from the time of fitting of the SpineCor Brace to the point at which that last Cobb angle was measured during bracing. This meant an overall correction and stabilization for 97% of the patients in Seville, Spain during their first year of treatment. 1 out of 33 patients (3%) had curve progression of more than 5 degrees and underwent surgery.

### Conclusion

The SpineCor Brace is a potentially effective treatment for adolescent idiopathic scoliosis. We need to continue our study over a longer period until patients achieve a definitive result. However, these initial results seem promising and are similar to the initial results originally achieved at St. Justine Children's Hospital.