

Oral presentation

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## Positive outcome in obese patients with adolescent idiopathic scoliosis treated with the SpineCor Brace

Valerie Vachon<sup>1</sup>, Alin Circo<sup>1,2</sup>, Christine Coillard<sup>1,2</sup> and Charles H Rivard\*<sup>1,2</sup>

Address: <sup>1</sup>Research Center, Sainte-Justine Hospital, 3175 Côte Ste-Catherine, Montréal, Québec, Canada, H3T 1C5 and <sup>2</sup>University of Montreal, Montreal, Canada

Email: Charles H Rivard\* - chrivard@gmail.com

\* Corresponding author

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### Objective

To compare outcomes of SpineCor brace treatment [1] in AIS patients who were obese with the outcome in patients of normal weight.

### Study design

From December 1994, 503 patients were treated using the SpineCor brace. One hundred eighty patients have a definitive outcome. The cohort of patients was divided into two groups according to body habitus. Obese patients were defined as those with a body mass index in the 85<sup>th</sup> percentile or greater [2]. Assessment of brace effectiveness included 1) number of patients whose curves progressed by  $\leq 5$  degrees; 2) number of patients whose curves progressed by  $\geq 6$  degrees; 3) number of patients with curves exceeding forty-five degrees at the end of treatment; and 4) number of patients who have been recommended/undergone surgery before skeletal maturity.

### Results

The results demonstrate that AIS patients who are obese as well as patients of normal weight, treated by the SpineCor brace, have a positive outcome (62% and 66% of success respectively). This is not the case for overweight AIS patients following orthotic treatment using the three point pressure principle [3].

### Conclusion

The results suggested that the use of a dynamic brace to improve scoliotic deformations through a new concept

and treatment approach re-establishes spinal function, while preserving body movement and growth without being interfered by body habitus.

### 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.
2. Dehghan M, Akhtar-Danesh N, Merchant AT: **Childhood obesity, prevalence and prevention.** *Nutrition Journal* 2005, **4**:24.
3. O'Neill PJ, Karol LA, Shindle MK, Elerson EE, BrintzenhofeSzoc KM, Katz DE, Farmer KVV, Sponseller PD: **Decreased orthotic effectiveness in overweight patients with AIS.** *Bone Jt Surg* 2005, **87A**:1069-1074.