The Treatment of Adult Scoliosis Utilising the SpineCor® Dynamic Corrective Brace

Louise Marcotte B.Sc. D.C., Christine Coillard M.D., Pascale Dion D.C., Charles-Hilaire Rivard M.D.

INTRODUCTION

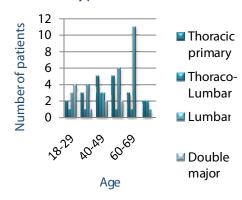
Scoliosis and spinal deformities offer little hope for rehabilitation in the adult population. Pain and viscerosomatic dysfunction are frequently encountered and conventional medical care uses rigid bracing, medication and surgery in the most serious cases.

The treatment of Adult Scoliosis with The SpineCor® Dynamic Corrective Brace deserves more attention. It offers a great variety of combinations to better spinal alignment, depending on the curve type, its severity and rigidity. The main therapeutic goal is to improve pain and postural alignment as well as to reduce the chances for progression as the patient ages. The brace acts as a dynamic support against compressive loading on the inter-vertebral joints, while creating a corrective movement in the spine which produces neuromuscular integration.

MATERIALS AND METHODS

A prospective study was made on 66 adult scoliosis patients, 59 females and 7 males aged between 18 and 93. They presented with curvatures of all types (primary thoracic, thoracolumbar, lumbar and major double) of many different aetiologies, with Cobb angles ranging from of 15 to 93°. All were fitted with a SpineCor® Brace according to the SpineCor® Protocol. The data was collected in a time frame between 2 months and 2 years post-bracing.

Types of curves



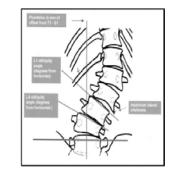
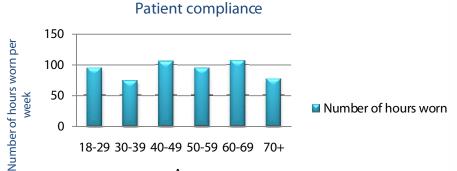




Figure 2 : Distinctive features of Adult Scoliosis (Schwab et al. 2002)

RESULTS

Of the 56 who have actively been wearing it anywhere from 10 to 154 hrs/week, 25 have seen complete resolution of their symptoms while in brace, 14 of which had a Numerical Pain Scale (NPS) of 5/10 and over. Although the brace had little effect on the curve itself, especially in older patients, and while there has been 1 reported case of aggravation in leg radiculopathy, we found an **overall 60% improvement in the pain status** of those patients who have actively been wearing their brace.



80 60 40 20 Before

Effect on curves



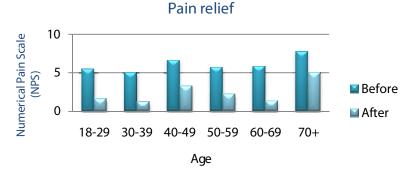


Figure 5

Figure 3

Cobb Angle

CONCLUSION

These results suggest that the SpineCor® Dynamic Corrective Brace is a promising conservative method for the treatment of scoliosis in the adult population as it allows for the patients to improve their pain status and wellbeing.





- Schwab F, Smith VA, Biserni M, et al. Adult Scoliosis: A Quantitative Radiographic and Clinical Analysis. Spine 2002; 27(4):387-392.
- Janicki JA, Poe-Kochert C, Armstrong DG, and. Thompson GH. A Comparison of the Thoracolumbosacral Orthoses and Providence Orthosis in the Treatment of Adolescent Idiopathic Scoliosis. J Pediatr Orthop 2007;27:369-374.
- Robert N. Hensinger, and George H. Thompson. Orthotic Management in Adolescent Idiopathic Scoliosis: Leveling the Playing Field. J Pediatr Orthop 2007:27(4):367-368.
- Coillard C, Vachon V, Circo AB, Beauséjour, Rivard CH. Effectiveness of the SpineCor Brace Based on the New Standardized Criteria Proposed by the Scoliosis Research

Society for Adolescent Idiopathic Scoliosis. J Pediatr Orthop 2007:27:375-379.







BIBLIOGRAPHY