

Display Settings: Abstract



Stud Health Technol Inform. 2012;176:393-6.

Bracing can reduce high degree curves and improve aesthetics immediately after the end of growth. Final results of a retrospective case series.

Negrini S, Donzelli S, Lusini M, Zaina F.

Physical and Rehabilitation Medicine, University of Brescia, Italy. stefano.negrini@isico.it

Abstract

INTRODUCTION: Recently it has been shown that idiopathic scoliosis (IS) curves can be reduced with bracing, and it has been proposed that this could be useful in non-surgically treated high degree curves even after Risser 3. Moreover, bracing has been shown to be able to improve aesthetics, and this could be another reason to treat some patients with cosmetic needs. Our aim is to preliminary check if results can be obtained in IS patients after Risser 3.

METHODS: Design. Retrospective uncontrolled cohort study. Inclusion criteria. All IS patients treated on a voluntary basis for aesthetic reasons and/or for curve reduction; Risser 4-5 at start; end of treatment reached. Population. 34 females and 2 males, age 16.2 ± 1.6 years, Cobb angle $27.6^\circ \pm 8.9^\circ$. Treatment. Lyon or SPoRT braces 18 to 24 hours/day, specific SEAS exercises, rapid weaning (2-3 hours every 6 months). Outcome criteria: SRS (unchanged; worsened over 6° ; over 45° at the end of treatment; surgically treated), radiographic and clinical. Statistics. ANOVA and chi-test.

RESULTS: The reported compliance during the 2.8 ± 1.1 treatment years was 95.1%, while residual growth was 0.9 ± 1.1 cm. Improvements were found in 39% of this cohort, (46% in curves over 30°). Only 1 patient progressed 6° . We found highly statistically significant reductions of maximal (-4.4°), thoracic (-6.0°) and thoracolumbar (-6.6°) curves. Statistically significant improvements were found for Aesthetic Index.

CONCLUSION: Before 20 years of age, even in skeletally mature patients, it is possible to reach radiographic and aesthetic improvements, although not as good as during growth. Correction is based on bone growth, but ligaments and neuromuscular control of posture can also be involved.

PMID: 22744537 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

LinkOut - more resources