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Topic	Bracing for Scoliosis
Title	Efficacy of conservative treatment of adolescent idiopathic scoliosis: end-growth results respecting SRS and SOSORT criteria.
Authors	<i>Negrini S, Atanasio S, Fusco C, Zaina F.</i>
Abstract	<p>Objectives: verifying the efficacy of a complete conservative treatment of adolescent idiopathic scoliosis (AIS) according to the best methodological criteria defined in the literature.</p> <p>Background: the SRS criteria give the methodological reference frame to present results of bracing. SOSORT criteria give the clinical reference frame for an appropriate bracing treatment. The combination of the two has never been presented in a study until now</p> <p>Methods: The combination of the two has never been presented in a study until now</p> <p>Study Design: retrospective study. Population: we included all AIS patients respecting the SRS inclusion criteria (age 10 years or older; Risser test 0-2; Cobb degrees 25-40°; no prior treatment; less than 1 year post menarche) that reached the end of treatment since our database start in 2003; we had 44 females and 4 males, age at start 12.8±1.6. Methods: according to individual needs, 2 patients have been treated with Risser casts followed by Lyon brace, 40 with Lyon or SPoRT braces (14 for 23 hours per day, 23 for 21 h/d, and 7 for 18 h/d), and 2 with exercises only. Outcome criteria: SRS (unchanged; worsened over 6°; over 45° at the end of treatment; surgically treated; 2 years follow-up); clinical (ATR, hump, Aesthetic Index, plumbline distances); radiographic (Cobb degrees); and ISICO (optimum; minimum). Statistics: ANOVA and chi-test.</p> <p>Results: reported compliance during the 4.2±1.4 treatment years was 90.9±17.6%. No patients progressed over 45°, no one was fused and this remained true at the 2 years follow-up for the 50% that reached it; worst and average curves progressed in 4%, while 8%, 11% and 6% progressed in Thoracic. Thoracolumbar and Lumbar curves respectively. We found highly statistically significant reductions of maximal (-7.0°), average (-5.6°), thoracic (-4.2°) and lumbar (-6.7°) curves. Statistically significant improvements have been found also for Aesthetics and ATR, but plumbline distances diminished. Clinically, less than 10% of patients worsened for all parameters (exceptions: lumbar ATR and hump), while improvements were very common. According to ISICO criteria 88% of patients had minimum and 65% optimal results.</p> <p>Conclusion: respecting SOSORT criteria, results of conservative treatment is much better than what previously reported in the literature using the SRS criteria.</p>
Affiliation	<i>ISICO (Italian Scientific Spine Institute), Via Roberto Bellarmino 13/1, 20141 Milan, Italy</i>