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Topic	**Physiotherapy for Scoliosis**
Title	Efficacy of specific SEAS exercises for adolescent idiopathic scoliosis: end-growth results of a controlled prospective study.
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Abstract

Objective: The aim of this paper is the evaluation of end-growth results in three groups of adolescent patients with mild scoliosis treated only with exercises.

Background: Systematic reviews on conservative treatment based on physical exercise to contrast scoliosis progression have proved efficacy of this approach. It's still unclear which kinds of exercises are more effective; indeed we already showed the higher short term efficacy of SEAS.02 approach.

Methods Study design: Prospective controlled study Population 38 adolescent idiopathic scoliosis patients (6 male; 32 female, 13.5+/- 3,5 age range, Risser 0-3 C°>10, B°>5) whom were prescribed only exercises to avoid progression at first evaluation: all patients were enrolled consecutively. Patient were divided into three groups: SEAS group treated with specific SEAS exercise, CONTROL group patients with no treatment and OTHER treated with different protocol. Outcome criteria Percentage (%) of patients who needed bracing; % patients improved, stable or worsened according to SRS criteria (change >5° Cobb and >3° Bunnell); worst curve mean PRE/POST treatment Cobb degrees (C°); worst curve mean PRE/POST treatment ATR (Bunnell degrees - B°). Statistics ANOVA and chi-square are performed

Results:

	BRACED	% IMPROVED PATIENTS B°/C°	% STABLE PATIENTS B°/C°	% WORSENED PATIENTS B°/C°	PRE C°	POST C°
SEAS	8% (*)	8% - 16%	76% - 54%	16% - 30%	14°±4°	13°±5°
CONTROL	55% (*)	9% - 9%	36% - 36%	55% - 55%	13°±6°	15°±5°
OTHER	29% (*)	6% - 7%	65% - 50%	29% - 43%	16°±2°	14°±5°

Conclusion: Not all exercises for scoliosis have the same efficacy: this study proves again the efficacy of SEAS.02 when compared to usual care. In an age at risk, the group with the qualitatively better treatment (SEAS) has demonstrated an improvement of median values, but also the less effective treatment has allowed a higher stabilization if compared to natural history. In our view, the most important difference is the one in terms of bracing, because when scoliosis is of low degree, the aim of treatment is mainly avoiding more aggressive treatments, with higher impact on patient's quality of life.

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