

Oral presentation

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Efficacy of specific SEAS exercises for adolescent idiopathic scoliosis: end-growth results of a controlled prospective study

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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 using physical exercise to counteract scoliosis progression have been proven effective. It is still unclear which kind of exercise is most effective; although the higher short term efficacy of SAEA.02 has already been shown in previous research.

Materials and methods

A prospective controlled study was done with 38 adolescent idiopathic scoliosis patients (6 male; 32 female, 13.5 +/- 3.5 years of age; Risser 0-3; Cobb Angle > 10°, Bunnell Angle > 5°) who were prescribed only exercises to avoid progression at the time of their first evaluation. All patients were enrolled consecutively. Patient were then divided into three groups: SEAS group treated with spe-

cific SEAS exercise, CONTROL group with no treatment and an OTHER group treated with a different protocol.

The outcome criteria were as follows: Percentage (%) of patients who needed bracing; % of patients who improved, were stable, or worsened according to SRS criteria (Cobb Angle change > 5° and Bunnell Angle change > 3°); worst curve mean PRE/POST treatment Cobb degrees (C°); worst curve mean PRE/POST treatment ATR (Bunnell degrees - B°). Statistical analysis was done with ANOVA and chi-squared tests, Table 1.

Results

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 mean values. Also, though, the less effective treatment has shown a better stabilization when com-

Table 1:

	BRACED	% IMPROVED PATIENTS B°/C°	% STABLE PATIENTS B°/C°	% WORSENE 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°

pared to natural history. In our view, the most important difference is the one in terms of bracing, because when scoliosis is small, the aim of treatment is mainly avoiding more aggressive treatments, with a higher impact on patient's quality of life.

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