



Conservative treatment of scoliosis using only exercises. Are the curves only stabilized? A reassessment of treatment outcome rates in a group of 580 patients

Background

Conservative treatment of scoliosis is performed with the application of braces or teaching specific exercises. The fundamental objective of the exercises is the stabilization of the curves, that is, to prevent worsening. As indicated in the guidelines, Improvement is not considered a usual objective.

Aim

To verify whether treatment with only exercises is adequate to simply slow their evolution or whether reductions of the curves can also be obtained. **Study design** - Descriptive study

Methods

From a group of 11.234 patients, who were visited in a specialized center for the treatment of idiopathic scoliosis, 982 cases with a diagnosis of scoliosis were selected and given different treatment prescriptions depending on the severity of the curve and the risk of progression.

From this group, 580 patients were selected who began treatment with the prescription of only specific exercises and who finished the treatment without the prescription being modified.

The group consisted of 454 (78.1%) female patients with a mean Cobb of 19.6 and 126 (21.9%) male patients with a mean Cobb of 19.8.

Results

All patients finished treatment at Risser 4 (454 pts – 77.7%) or Risser 5 (129 pts – 22.3%).

After treatment that lasted an average of 31 months, the results of the changes in the Cobb degrees of the main curve are listed in this tables. The patients were divided into males and females to verify any differences.

The definition of improvement or worsening assumes that curves can be defined as changed with a variation greater than 5 Cobb degrees.

Female	Male	
327 (72%)	83 (65,9%)	Stable
72 (15,8%)	25 (19,8%)	Worsened
55 (12,2%)	18 (14,3%)	Improved

Clinical significance and implication for practice

An interesting reflection can be made on the rule of 5 degrees that we follow in practice.

If for the improved and worsened we also include the curves that have increased or worsened by 5 degrees precisely, the tables change significantly.

Conclusion

The conservative treatment of scoliosis based on the execution of specific exercises throughout the maturation period of the skeleton allows to stabilize the curves in about 70% of cases (72% males - 66% females). The remainder is divided into worsened (15.8 females and 19.8 males) and improved (12.2 females and 14.3 males) with a variation greater than 5 degrees.

Female	Male	
274 (60%)	70 (55,5%)	Stable
98 (21,4%)	33 (26,1%)	Worsened
82 (18,6%)	23 (18,4%)	Improved