

Oral presentation

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Brace treatment can change aesthetics in Adolescent Idiopathic Scoliosis (AIS) patients

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Background

Aesthetics is a main goal both of conservative and surgical treatment in AIS. Previously we developed and validated a clinical scale, the Aesthetic Index (AI), to measure aesthetic impairment and changes during treatment.

Aim

To verify the efficacy of bracing on aesthetics in AIS.

Study design

Pre-post study.

Population

Thirty four consecutive patients, age 13.2 ± 3.7 , initial Cobb Angle $30 \pm 12^\circ$, ATR $10 \pm 4^\circ$ Bunnell, 11 males.

Methods

Patients with at least 5/6 score of AI were included. All of them had a brace prescription (18 to 23 h per day). After 6 months, AI was measured again, and pre-post scores compared. The Wilcoxon test was performed. 11 of these patients already concluded treatment and definitive results are reported.

Results

At the beginning, median AI was 6 (95% IC 5–6), after 6 months of brace AI score decreased to 2 (95% IC 0–6) ($p < 0.05$). In the final subgroup results, the effect of the brace was the same (from 6 to 3). After 6 months, we did not find any difference in the results according to the hours of brace wearing or to the type of exercises performed.

Conclusion

Use of a brace for just 6 months, will improve aesthetics. This is evident even in high aesthetic impact scoliosis. Completing brace treatment can guarantee the maintenance of achieved results.

References

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