

Oral presentation

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Early night-time-bracing – an alternative in scoliosis management

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Background

The application of a Full-Time-Brace in combination with physiotherapy is still the "Gold Standard" of conservative scoliosis therapy in the German speaking area. However, the step from only physiotherapy to full-time bracing (at 20–25° COBB) appears to be a far-reaching physical and psychological challenge for a child or teenager.

Aim

The goal of the investigation was to determine if early night-time bracing (16–25° COBB) can effectively stop idiopathic scoliosis progression and prevent full-time bracing successfully.

Methods

We present the results of 22 early treated scoliosis patients, treated all with a Dresdner night-time brace at one institution. The average age was 11.9 years and the average follow up was 24.9 months after brace discontinuation. Treatment was considered successful if there was improvement in the curve or up to a maximum progression of 5° and if there was no progression above an absolute value of 25° COBB.

Results

We found a primary correction of 82.2%. After 24.9 months follow up we found a success rate of 86.3% (including noncompliant patients, 79.2%). Scoliosis patients with more than a 25° initial COBB angle were not included in this investigation.

Conclusion

Early Night-Time-Bracing is an ideal controllable first step in orthotic treatment of scoliosis, and is sufficient for most patients with lower COBB angles to avoid full-time bracing. It is possible to suspend the treatment at any time if scoliosis decreases significantly (low risk of overtreatment) and it is also possible to change to full-time bracing if curve progresses. We recommend treating patients with higher initial COBB-angles with full-time bracing.

References

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