

Oral presentation

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Conservative treatment in patients with severe congenital scoliosis: a presentation of three cases

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Background

In view of the very limited data about conservative treatment of patients with congenital scoliosis (CS), early surgery is suggested in mild cases with segmentation failures in the first three years of life. It is common sense that patients with failures of segmentation will not benefit from conservative treatment at all and the same applies to failures of formation with curves of > 50 degrees in infancy.

Materials and methods

Two patients with rib synostosis denied surgery before entering the pubertal growth spurt. These patients have been treated conservatively with braces and Scoliosis In-Patient Rehabilitation (SIR) and now are beyond the pubertal growth spurt. One patient with a formation failure and a curve of > 50 degrees lumbar has been treated with the help of braces and physiotherapy from 1.6 years on and is still under treatment now at the age of 15 years.

Results

Severe decompensation was prevented in the two patients with failure of segmentation, however a severe thoracic deformity is evident with underdeveloped lung function and severe restrictive ventilation disorder. The patient with failure of segmentation is well developed now without cosmetic or physical complaints although his curve progressed at the end of the growth spurt due to mal-compliance.

Conclusion

Failures of segmentation should be advised to have surgery before entering the pubertal growth spurt. In cases in which they decline surgery, conservative treatment can at least in part be beneficial. For patients with failures of formation, conservative treatment should be suggested in the

first place because long-term outcomes of early surgery beyond pubertal growth spurt are not yet revealed.

References

1. Thompson AG, Marks DS, Sayampanathan SR, Piggott H: **Long-term results of combined anterior and posterior convex epiphysiodesis for congenital scoliosis due to hemivertebrae.** *Spine* 1995, **20**(12):1380-1385.
2. Marks DS, Sayampanathan SR, Thompson AG, Piggott H: **Long-term results of convex epiphysiodesis for congenital scoliosis.** *Eur Spine J* 1995, **4**(5):296-301.
3. Weiss HR: **Congenital scoliosis – presentation of three severe cases treated conservatively.** *Stud Health Technol Inform* 2008, **140**:310-3.