Scoliosis

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Oral presentation

Treatment of the congenital scoliosis by Cheneau brace: 2 year follow-up

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Background

The treatment of congenital spinal deformities is a real challenge. The modern standard of treatment includes surgical interventions intended to correct or fuse the spine. In some cases, such an approach is impossible because of severe comorbidities. We hypothesized that a Cheneau brace might be effective in young patients with congenital spinal deformity. This paper is a continuation of our previous study.

Objective

The objective of this study was to study Cheneau brace treatment results in patients with congenital spinal deformities during 2-years follow-up.

Materials and methods

We investigated 7 patients with congenital formation failure. 2 patients had wedge vertebra, and 5 patients had hemivertebra. They were treated utilitizing the Cheneau brace from 2007 to 2009. The mean age at the beginning of treatment was 5.6 years (range 2-9 years). A full-time regimen was prescribed for all the patients.

Outcome

We observed a significant improvement of Cobb angle, wedge angle, and Cheneau index after 1 year of bracing treatment. After 2 years, radiographic data did not change dramatically, but slightly improved (Table 1).

Conclusion

We conclude that Cheneau brace active correction principles provide correction and control of congenital spinal deformities.

Table 1: Analyzed data during follow-up

X-ray data	Cobb angle			Cheneau index			Wedge angle		
Pts	**Before treatment**	**1 year**	**2 year**	**Before treatment**	**1 year**	**2 year**	**Before treatment**	**1 year**	**2 year**
1.WV	30	12	8	23.2	17.8	12.6	20	10	8
2.WV	24	18	10	39	31	16.1	23	21	10
3.WHV	20	8	2	42.3	27.3	18.35	24	15	11
4 WHV	23	19	18	40.5	40.3	23.51	30	24	14
5WHV	15	10	10	31.21	15.6	16	30	22	23
6WHV	69	54	54	-	-	-	-	-	-
7 MSA Thoracic/ Lumbar	18/19	22/12	24/7	41.24/29.9	28.4/28.8	16.2/10.2	29/19	19/12	15/7