

Oral presentation

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## Conservative treatment in patients with scoliosis due to Prader Willi Syndrome

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from 5<sup>th</sup> International Conference on Conservative Management of Spinal Deformities  
Athens, Greece. 3–5 April 2008

Published: 15 January 2009

*Scoliosis* 2009, **4**(Suppl 1):O57 doi:10.1186/1748-7161-4-S1-O57

This abstract is available from: <http://www.scoliosisjournal.com/content/4/S1/O57>

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### Background

Patients with Prader Willi Syndrome often suffer from scoliosis of major degrees. Review of the current literature demonstrates that surgical intervention is the gold standard of treatment. Unfortunately, the rate of complications in this condition is reported to be significantly higher than in patients with Adolescent Idiopathic Scoliosis. The purpose of this study is to reveal the effects of conservative treatment in this rare patient population.

### Materials and methods

A case series of patients with this condition has been investigated to estimate as to whether Prader Willi patients with scoliosis may benefit from conservative scoliosis management. 9 Patients with this condition have been found in our out-patient database. 5 of these are mentally retarded patients (3 girls, two boys) and are 19 years and older and therefore are without any significant residual growth. Average Cobb angle was 47 degrees (34–66 degrees), average observation time was 6.4 years.

### Results

Two of the five patients progressed. Average Cobb angle after follow-up was 52 degrees. No progression beyond 70 degrees has been found after cessation of growth. In one patient the curve deteriorated clearly after reducing brace wearing time and therefore was due to non-compliance.

### Conclusion

Stabilization of scoliosis due to Prader Willi Syndrome is possible by means of conservative management. To

expose this patient population to surgical management seems not to be justified medically.

### References

1. Yamada K, Miyamoto K, Hosoe H, Mizutani M, Shimizu K: **Scoliosis associated with Prader-Willi syndrome.** *Spine J* 2007, **7**(3):345-8.
2. Weiss HR, Bohr S: **Conservative scoliosis treatment in patients with Prader-Willi syndrome.** *Stud Health Technol Inform* 2008, **140**:314-7.