

Oral presentation

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## Compliance and satisfaction of TLI-bracing in kyphotic and scoliotic deformities in relation with intrinsic dynamic aspects

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### Objective

The objective of this study was to show good compliance and satisfaction in wearing a corrective brace with TLI (Thoracolumbar Lordotic Intervention) technique and highlight the important dynamic parts in this type of treatment.

### Background

Former rigid non dynamic TLSO braces are known for their troublesome compliance and poor patient satisfaction. Dynamic braces can have good compliance but do not easily reach evident corrections. A solution was found in a short rigid brace with evident dynamic aspects by concentrating forces in a symmetric natural way at the thoracolumbar joint.

### Methods and results

In a group of 91 adolescents with kyphotic and scoliotic deformities with earlier presented results in radiologic correction, a questionnaire was administered after at least one year (mean 1.6 years) wearing the brace. Bracing alterations were also performed during the times the brace could be adapted towards more corrective lordosis and extension.

### Outcome

Compliance was estimated by physician and parents and scored poorly in 5.5%, fair in 30.8%, and good in 61% (Unknown 2%). Progressive alterations in shape by adding pads to increase lordosis at the TL joint and bending

the sternal support backward were done a mean of 5.1 times by the orthotist. No skin sores were reported. 58.2% and 26.4% were respectively satisfied or very satisfied with the whole treatment course. The ease of brace wearing scored very good in 11%, good in 46.2%, and fair in 25.3%. With respect to overall satisfaction of perceived results, 34.1% were very satisfied, 45.1% were satisfied, 9.9% were neutral, and 6.6% were unsatisfied. Different subgroups were studied and will be presented (figure 1).

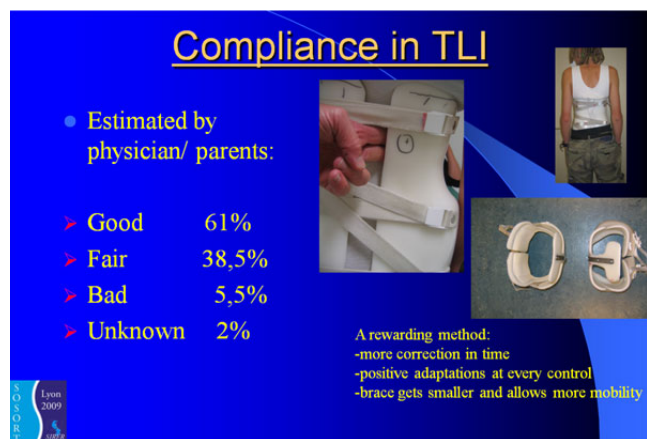


Figure 1

## Conclusion

TLI braces are accepted very well by children with spinal deformities. Improved radiographic results were not the primary motivation for the compliance, but rather the fact that good compliance was rewarded with gradually improved posture and regained mobility provided by the dynamic philosophy behind the bracing technique.

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