

Oral presentation

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## Does bracing affect the quality of life of the patients with idiopathic scoliosis? Re-analysis of Cobb angle-matched subjects

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### Background

At the 2008 SOSORT meeting in Athens, we reported that the quality of life (QOL) of the patients treated with Milwaukee brace (MB) was lower than that of the patients treated with under arm brace (UAB) or exercise. However, in that study, there were significant differences in the Cobb angle measurements among the patients in the treatment groups.

### Objectives

The aim of this study is to re-analyze the QOL of the patients with idiopathic scoliosis who underwent conservative treatment by comparing Cobb angle-matched treatment groups.

### Methods

Female patients with idiopathic scoliosis who underwent conservative treatment for at least one year, whose age was between 14 and 29 years and whose Cobb angle was between 25 and 50 degrees, were included in the study. The responses to the Scoliosis Research Society (SRS-22) questionnaire, Oswestry disability index (ODI), and Roland-Morris disability questionnaire (RDQ) were analyzed according to the treatment they received.

### Results

Of the 84 included in the analysis, 19 were treated with MB, 37 were treated with Boston type UAB, and 28 were treated with exercise only. Most of the patients wore their brace part-time. The average age of three groups was 17.9,

18.3, and 21.5 years, and the average Cobb angle was 38.8, 37.8, and 36.0 degrees respectively. The average score for the domains of SRS-22 in pain, function, self image, mental health, and satisfaction was respectively 4.5, 4.0, 3.5, 3.9, and 3.4 in the MB group, 4.7, 4.2, 3.5, 4.1, and 3.4 in the UAB group, and 4.6, 4.4, 3.2, 3.8, and 3.6 in exercise group. The score for function domain was significantly lower in the MB group than in the other two groups. There was no difference among the three groups regarding other domains of the SRS-22, ODI and RDQ score.

### Conclusion

Brace type was one of the factors that affected the QOL of patients with idiopathic scoliosis.