

Oral presentation

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Is correction of the deformity sufficient for complete recovery from idiopathic scoliosis?

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Objective

Aim of the study is to show that all patients that reached the complete correction of the parameter of scoliotic deformity (Cobb and Pedriolle degree) by means of orthotic treatment maintained the correction even after the early end of treatment (before the end of growth).

Study design

The study was carried out on 300 patients who underwent orthotic treatment by means of Progressive Action Short Brace (P.A.S.B.). Sixteen patients (14 females and 2 males) were selected on the basis of the following criteria:

- Complete correction of Cobb and Pedriolle degrees
- End of treatment before the skeletal maturity

Nine cases presented a thoracolumbar scoliosis and seven cases presented a lumbar curve.

At the beginning of treatment mean age was 12 ± 1.67 years and mean Cobb angle was 28 ± 5.7 degrees. Treatment lasted 25.88 ± 1.99 months.

Results

In all cases the complete correction of Cobb that Pedriolle parameters was maintained after the weaning from the

brace. Results maintained stable at follow-up (96 ± 2.73 months).

Conclusion

Evolution of the scoliosis is the result of the interaction between biological and mechanical factors. The biomechanical studies of the elastic characteristics of the healthy spine and the deformed one confirm the assumption, but do not solve the question of their respective role in the pathogenesis of the deformity. Clinical analysis has confirmed that the mechanical component assumes a prominent role compared to the biological factors in the pathogenesis of the evolution of the curve [1,2].

References

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