Bracing does not change the sport habits of patients.

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Abstract

INTRODUCTION: In our Institute for many years we have asked patients to perform sport activities freely while in treatment, wearing braces or not, because of the physical and psychological advantages. Our aim was to verify whether it is really possible for patients to perform sport with the brace on, and if they complied with this proposal.

MATERIAL AND METHODS: Retrospective cohort study nested in a prospective clinical database. Inclusion criteria: Adolescent Idiopathic Scoliosis (AIS), start of brace treatment, never treated before, Risser 0-3, age 10-16 years.

POPULATION: 607 patients, 13.0±2.1 of age, 33.1°±12.0° Cobb. The sport practice in the first six months of bracing was evaluated, searching for changes in the number of patients performing sport activities and in the average sport activity in the considered subgroups. Groups considered included type of brace (Lyon, LSO, Sforzesco, Sibilla, others) and hours of bracing: 22-24 (sport in brace), 19-21, 18 (sport without the brace).

RESULTS: Patients with worst curves (and more hours of bracing prescribed) at the baseline practiced less sport than the others. Sport behaviour did not change with treatment: number of patients performing sport were 51.3% at start, 49.9% at the end. The hours of sport per week had a slightly but statistically significant reduction from 1.3±1.6 to 1.2±1.5 (P<0.05), mainly due to the decreased number of patients performing two sports (22.4% before, 18.1% after). General results were confirmed in the different subgroups, with no difference between groups performing in-brace or out-of-brace sport. CONCLUSION: It is possible to undergo brace treatment and continue normally practicing sport, if this is explained to patients and parents and if braces are designed in a way to allow it.

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