Braces for Idiopathic Scoliosis in Adolescents.

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Abstract

STUDY DESIGN: A Cochrane Systematic Review

OBJECTIVE: To evaluate the efficacy of bracing for adolescents with AIS versus no treatment or other treatments, on quality of life, disability, pulmonary disorders, progression of the curve, psychological and cosmetic issues.

SUMMARY OF BACKGROUND DATA: Idiopathic scoliosis is a three-dimensional deformity of the spine. The most common form is diagnosed in adolescence. While adolescent idiopathic scoliosis (AIS) can progress during growth and cause a surface deformity, it is usually not symptomatic.

METHODS: Search methods

We searched CENTRAL, MEDLINE, EMBASE, five other databases, and two trials registers up to February 2015. We also checked reference lists and hand searched grey literature.

Selection criteria

RCTs and prospective controlled cohort studies comparing braces with no treatment, other treatment, surgery, and different types of braces for adolescent AIS.

Data collection and analysis

We used standard methodological procedures expected by The Cochrane Collaboration.

RESULTS: We included seven studies. Five were planned as RCTs, two as prospective CCT's. One RCT failed completely, another was continued as an observational study. There was very low quality evidence from one small RCT that quality of life (QoL) during treatment did not differ significantly between rigid bracing and observation.

CONCLUSIONS: Two studies showed that bracing did not change QoL during treatment, and QoL, back pain psychological and cosmetic issues in the long term (16 years.) All papers showed that bracing prevented curve progression. The high rate of failure of RCTs demonstrates the huge difficulties in performing RCTs in a field where parents reject randomization of their children.

LEVEL OF EVIDENCE: 1.

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