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Nonoperative management of adolescent idiopathic scoliosis (AIS) using braces

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Abstract

This review presents the state of the art according to the current evidence on nonoperative treatment for adolescent idiopathic scoliosis, focusing on bracing. The definition of braces for the treatment of adolescent idiopathic scoliosis and a short history are provided. The analysis includes biomechanics, types, existing classifications, indications for treatment, time of brace wear and weaning, adherence, three-dimensional modeling, use of ultrasound imaging for bracing, management of treatment, issue of immediate in-brace correction, and documentation of the outcomes usually assessed for brace treatment, including the quality-of-life issues. According to the current evidence, there are two randomized control trials in favor of bracing. There are insufficient data on the superiority of one brace over another, although it is possible to classify and grade braces for efficacy from nonrigid to rigid and very rigid. Nevertheless, there is consensus on patients' management on the need for teamwork focusing on adherence to treatment, acceptability, and family and patient involvement.

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