Physical exercises as a treatment for adolescent idiopathic scoliosis. A systematic review.

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Our purpose was, through an extensive and systematic review of the literature, to verify the effectiveness of physical exercises in the treatment of adolescent idiopathic scoliosis. We performed a search of different databases (Medline, Cochrane Library, Embase, Cinhal), and a hand-search of the non-indexed pertinent literature, and found 11 papers: none of the studies was randomized, six were prospective, seven were controlled, and two compared their results to historical controls; one paper had both a prospective design and a concurrent control group. The methodological quality of the retrieved studies was reviewed and found to be very poor. With one exception, the published studies demonstrated the efficacy of physical exercises in reducing both the rate of progression or the magnitude of the Cobb angle at the end of treatment. However, being of poor quality, the literature failed to provide solid evidence for or against the efficacy of physical exercises in the treatment of adolescent idiopathic scoliosis. Nevertheless, considering that exercises could also be proposed on the basis that benefits rather than to avoid progression have been shown in the literature, and that the results contained in published studies here reviewed suggest an effect on the primary goal of preventing progression, there is a basis for discussion of this option with patients and their families, which in turn allows decisions to be made according to their preferences.

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