Orthotic Management in Adolescent Idiopathic Scoliosis
Leveling the Playing Field

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In this issue, we are publishing 2 articles that have used the new Scoliosis Research Society (SRS) guidelines[1] for inclusion and assessment of brace studies in adolescent idiopathic scoliosis. The guidelines are a product of the SRS Committee on Bracing and Nonoperative Management and are designed to establish standardized reporting parameters for subjects and measures for use in determining effective treatment. Such guides will allow for meaningful comparisons in future studies. The SRS inclusion criteria for bracing studies are diagnosis of adolescent idiopathic scoliosis, age of 10 years or older when the orthosis was fabricated, skeletal immaturity (Risser sign 0, 1, or 2), primary curve between 25 and 40 degrees, absence of previous treatment, and, if female, either premenarcheal or less than 1 year past menarche. All patients are to be included regardless of whether or not they were found to be compliant with their treatment regimen (*intent to treat*). The new SRS assessment of effectiveness criteria includes (1) the percentage of patients who had 5 degrees or less of curve progression, (2) the percentage of patients who had 6 degrees or more of curve progression at maturity, (3) the percentage of patients whose curve progressed beyond 45 degrees, and (4) the percentage of patients who had surgery recommended or performed. A minimum of 2 years of follow-up beyond skeletal maturity was required to complete a successful brace treatment. It is also recommended that all studies be stratified according to curve magnitude and type. We have embraced these guidelines and expect them to be used in future submissions to the *Journal of Pediatric Orthopaedics* of studies on brace management of adolescent idiopathic scoliosis.

The lack of standardized inclusion and assessment criteria has recently led the US Preventive Health Task Force to recommend against school screening for early diagnosis for scoliosis.[2] The rationale is a documented lack of evidence that there is an effective nonoperative treatment option to prevent curve progression in patients with mild curves. We think that this is a grievous error and may lead to a greater number of patients presenting late with more severe curves. Abandoning early diagnosis will limit any chance of nonoperative treatment and will result in greater risk associated with a larger number of children requiring complex surgical procedures for correction. However, it is also a challenge for pediatric orthopaedic surgeons to seek evidence-based proof that orthotic management is a statistically significant effective treatment for mild but progressive curves. These 2 articles share similar inclusion criteria and comparable results in curves of 25 to 35 degrees at the time of initiation of brace management. The thoracolumbar sacral orthosis and Providence orthosis were less successful in preventing progression in the larger curves and in reducing the need for surgery. However, the SpineCor orthosis demonstrated better results in this group. The exact reasons remain unclear. These 2 articles should serve as encouragement to future investigators to perform level 1 evidence-based research on this important question.

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REFERENCES

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