The Sforzesco brace and SPoRT concept: a brace to replace cast in worst curves.

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PURPOSE: Bracing still remains the most important conservative treatment for scoliosis; approaches to bracing are really many and diverse. The aim of this paper of this paper, is the presentation of the brace we recently developed (the Sforzesco brace and SPoRT concept) to face worst scoliosis, in the past treated through casting. METHODS: The SPoRT concept was born while we were looking for a new brace; it means Symmetric, Patient oriented, Rigid, Three-dimensional and Active. Details of construction and the biomechanical principle of its corrective action are reported. This brace has been used widely in the last 3 years. RESULTS: The Sforzesco brace showed to be more effective than the Lyon brace and as effective as the Risser cast on different clinical and radiological outcome measures in 2 different prospective study of best clinical practice. CONCLUSION: When compared to the other braces, the Sforzesco can find its place in the most important curves, in which there are no alternatives to try avoiding surgery. The SPoRT Concept appear a useful tool to interpret what happens with this brace, even if in the future could be overcome by new theories according to new (and awaited) results in the literature.