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Effectiveness of spinal release and halo-femoral traction in the management of severe spinal deformity.

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Abstract

The purpose of this retrospective review was to assess the effectiveness of spinal release and halo-femoral traction in the management of severe spinal deformity. Twenty-four patients had halo-femoral traction and a spinal release. Analysis focused on pre-traction curve, preoperative curve in bending or hyperextension films, final traction curve, traction weight as a percent of body weight, and complications associated with traction. The average pre-traction curve was 95 degrees and the average pre-traction curve in bending was 73 degrees; the final traction average curve was 44 degrees. The difference between the magnitude of curve correction in bending and traction films was statistically significant. Traction weight was increased to an average of 54% of body weight. The only complication was a bilateral lower extremity sensory deficit that resolved after traction weight reduction. The average final correction was 71%. Spinal release and halo-femoral traction offer a safe approach to the correction of severe spinal deformities before fusion.