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Intraoperative Image Guidance Compared with Free-hand Methods in Adolescent Idiopathic Scoliosis Posterior Spinal Surgery: A Systematic Review on Screw-Related Complications and Breach Rates

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Abstract

Background Context

Severe adolescent idiopathic scoliosis (AIS) is a 3D spinal deformity requiring surgery to stop curve progression. Posterior spinal instrumentation and fusion with pedicle screws is the standard surgery for AIS curve correction. Vascular and neurologic complications related to screw-malpositioning are concerns in surgeries for AIS. Breach rates are reported at 15.7%, implant-related complications at 1.1%