

MANAGING SEVERE KYPHOSCOLIOSIS WITH HALO-PELVIC TRACTION: A CASE REPORT

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ABSTRACT

This is an interesting case of a severe kyphoscoliosis patient that was managed using a halo pelvic traction (HPT) and posterior spinal instrumentation and fusion (PSIF). Our patient is a boy who was initially reviewed at our centre at the age of 3 for a spine deformity complaint and was unfortunately missing from follow up. He was referred back to us at the age of 13 due to a severe thoracolumbar kyphoscoliosis deformity with reduced effort tolerance. There were no neurocutaneous stigmata and his neurological examination was unremarkable. The apex of the deformity was at the level of T9 with the Cobb's and kyphotic angles estimated at 152° and 144° respectively. CT and MRI scans showed no evidence of vertebral or spinal cord anomaly. Due to the severity of the deformity, the decision for a HPT was made prior to PSIF. Distraction was performed over 58 days, followed by a single stage PSIF from T2 to L3. At 1-year post-operative, patient had no active complaints, with no evidence of implant loosening. The usage of HPT for spinal deformity correction has been reported by O'Brien in 1973, but poor tolerance by patients and complex configuration of the fixator frame limited its regular use. With the combination of standard Ilizarov device and our new fixator components, construct of frame and application on to the patient would be easier. HPT allows surgeons to reduce the risk of neurological complications associated with acute correction of severe spinal deformities.