Magnetically Controlled Growing Rods in Early-Onset Scoliosis: The Graduates

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Aims

- To describe the surgical experience and to measure the final correction achieved in ‘the graduates’

Patients and Methods

- Cobb angle and height from T1-S1 was measured from pre-operative and 6 week postoperative erect films.
- The surgeons were interviewed about their operative experience and a review of the operative notes was performed

Results – Intraoperative Findings

- **Metalosis** - associated with the rod-motor junction(5/5)
- **Loose screws** requiring upsizing (5/5)
- **Broken mechanisms** (2/5)

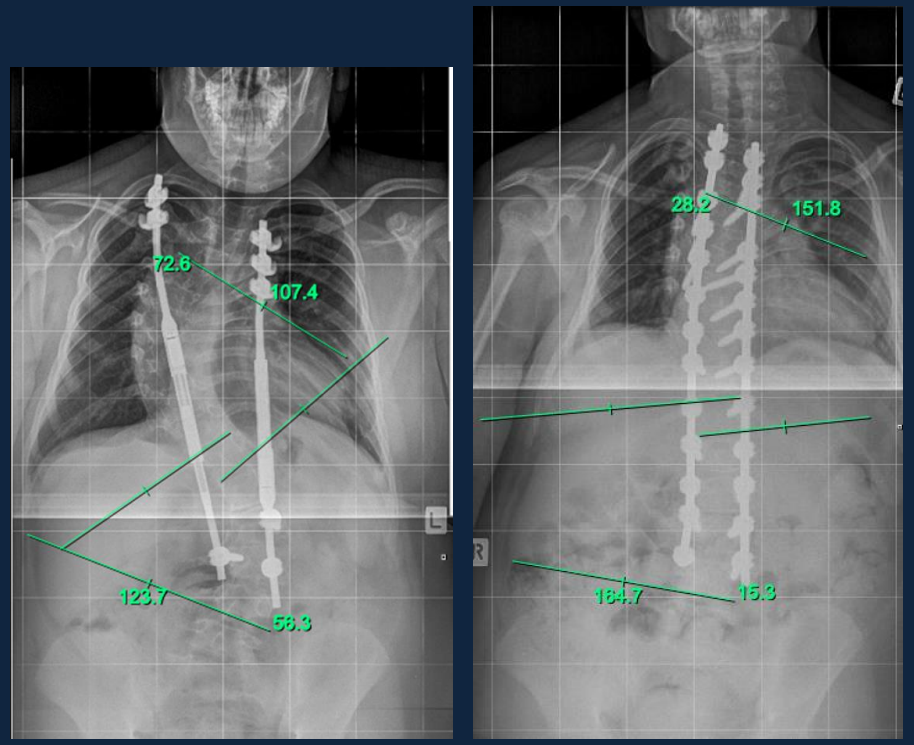
Metalosis

A broken mechanism

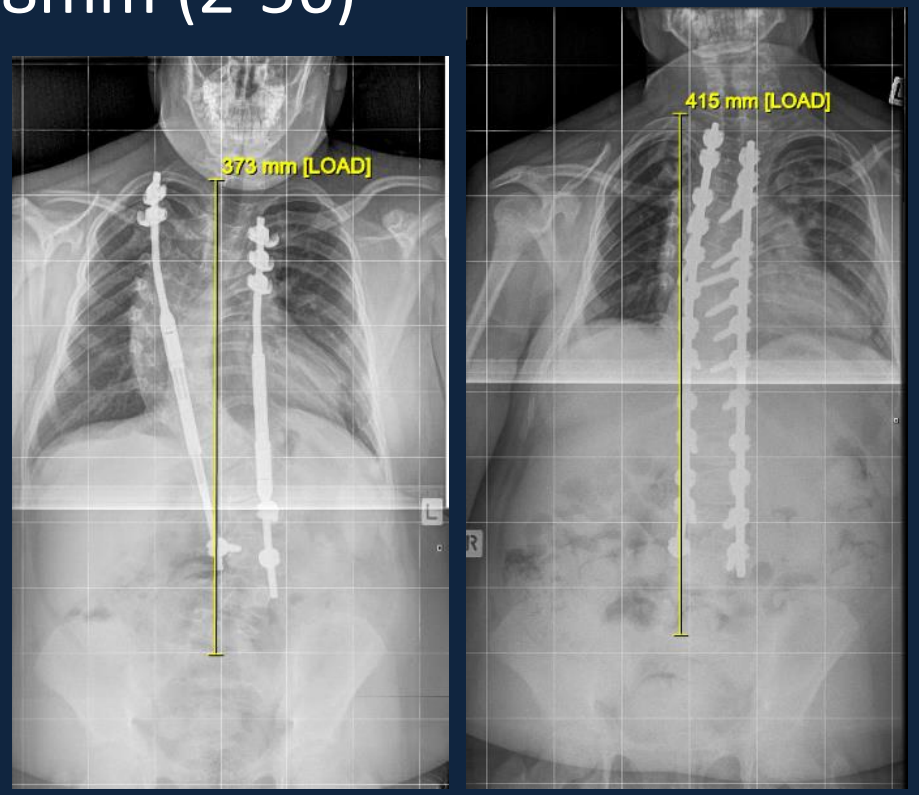
Post simple debridement

Results – Final Correction

- The mean coronal cobb angle correction was 17.7 degrees (-0.3-44.3)
- The mean change in height T1-S1 17.8mm (2-56)



Change in coronal alignment



Change in height

Results – Length of stay and complications

- The average length of stay was 8.8 days (6-16)
- One patient required two washouts due to on-going wound ooze with no positive deep tissue cultures

Conclusions

- During definitive fusion surgery following MCGR one can expect to routinely encounter metalosis which can be readily debrided in a contiguous layer. Several of the screws are often loose and must be upsized to provide sufficient strength for the definitive construct.

- The additional correction achieved is variable and depends primarily on the extent of the preoperative deformity.

- Length of stay is similar to a routine posterior spinal fusion.