

## Case Report: Hemivertebrectomy in Congenital Kyphoscoliosis via Anterolateral Approach

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### INTRODUCTION:

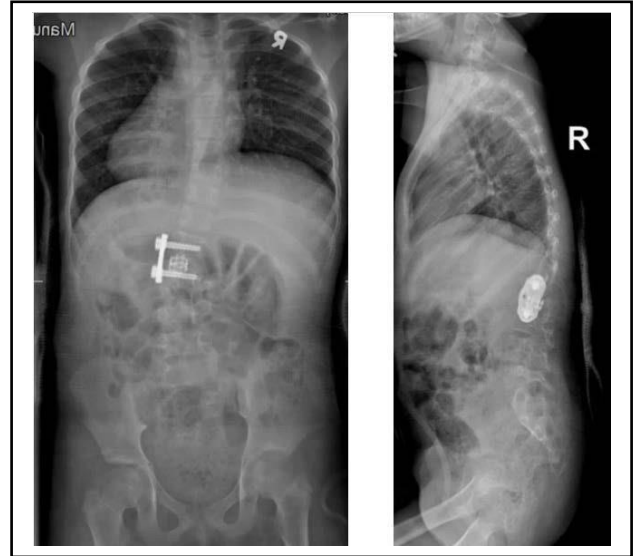
Congenital scoliosis is a spinal anomaly associated with lateral curvature, whereas, congenital kyphosis is a spinal deformity characterized by posterior convex angulation of a spine segment.<sup>[1]</sup> The incidence of congenital scoliosis is around 0.5-1/1000 births worldwide. The treatment is depending on types of vertebral deformity and curve progression.<sup>[2]</sup>

### REPORT:

This is a 10 years old girl with underlying lipomyelomeningocele, anorectal anomaly, CTEV and neurogenic bladder with hydronephrosis, she underwent meningocele repair 7 years ago without complication. She presented with spinal deformity and diagnosed with congenital kyphoscoliosis with hypoplastic retropulsed L1 and L2 vertebrae at the age of 4 years old. On examination, her power of bilateral lower limb L2-L3: 5, L4-S1: 0. X-ray whole spine showed Cobb angle of 30° and kyphotic angle of 60°. MRI and CT whole spine showed failure of segmentation of L1 and L2 vertebrae, hypoplastic with retrolisthesis complicated with spinal canal narrowing and spinal cord compression. She then underwent excision of L1 vertebrae and anterolateral instrumentation of T12-L2 vertebrae at the age of 10 years old. Post operatively, patient remained active and walk independently. She still having neurogenic bladder with baseline neurology.



**Figure 1:** Preoperative X-rays, CT (Sagittal), and MRI (Sagittal) whole spine



**Figure 2:** Post-operative Whole Spine X-ray (AP and Lateral view)

### CONCLUSION:

Congenital kyphoscoliosis with neurological deficit required surgical treatment to prevent worsening of the curvature and neurology.<sup>[2]</sup> In this case, our approach via anterolateral to achieve anterior spinal instrumentation and fusion with vertebrae excision has lower neurovascular risk.<sup>[3]</sup>

### REFERENCES:

1. Marks DS et al., The Natural History of Congenital Scoliosis and Kyphosis. *Spine*, 34(17), 1751–1755.
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3. Mehren Christoph et al., The Oblique Anterolateral Approach to the Lumbar Spine Provides Access to the Lumbar Spine With Few Early Complications. *Clin Orthop Relat Res* (2016) 474:2020–2027.