



Case of Isolated Hemivertebra

Authors

Nissar Moopan¹, Rajesh S M²

¹Junior Resident, ²Associate Professor

Dept. of Paediatrics, KMC Mangalore, Manipal University .Pin 575001

Corresponding Author

Dr Nissar Moopan

Junior Resident, Dept. of Paediatrics, KMC Mangalore, Manipal University Pin: 575001

Mobile-9947423024, Email: nissarm007@gmail.com

Abstract

Hemi vertebra is a rare vertebral defect in which there will be lack of formation of one half of vertebral body due to defect in mesenchymal anlage at 4-6 weeks of gestational age. It's a common cause of congenital scoliosis. Incidence rate is 3-5 in 1000 live births.

Keywords: Isolated Hemivertebra, Congenital scoliosis, Antenatal diagnosis.

Case Presentation

Our patient was 34-36 week preterm SGA male baby with birth weight of 1.4kg, born by vaginal route to a 35 year old mother. It was a non-consanguineous marriage. Baby cried soon after birth. Mother did not take any drugs or toxic agent and no history of radiation exposure during pregnancy. Anomaly scan was normal. On preliminary examination spine was curved. Clinical examination revealed tilted shoulder with

right sided scoliosis. So spine X-ray was taken which showed curvature with spinal defect. MRI of skeletal system revealed Hemi vertebrae of D3 and D12 vertebra. Baby was evaluated for other associated renal and cardiac anomalies, which were normal .No neurological deficit was noted .Patient was managed conservatively with plan for observation on follow up and to decide on further management in the follow up visits.



Fig 1



Fig 2

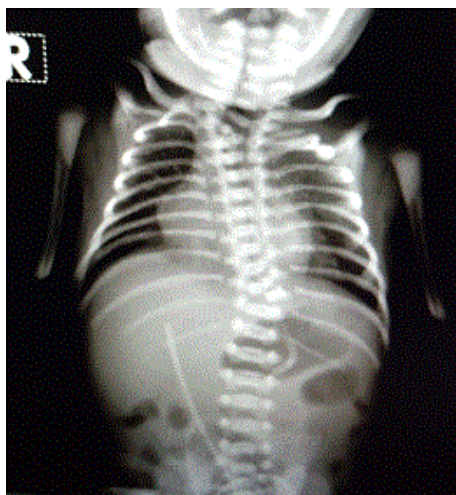


Fig 3

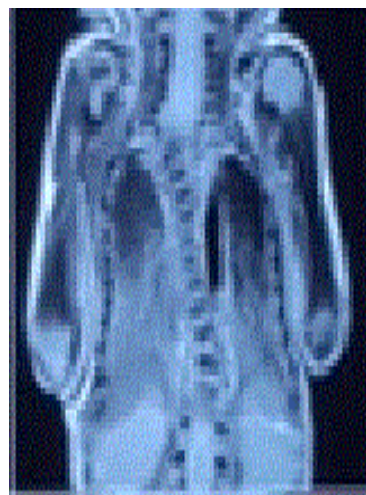


Fig 4

Discussion

Hemivertebrae is major cause of congenital scoliosis and kyphoscoliosis. It's due to development defect of vertebrae in formation, segmentation or both in first 6 months of gestation. Incidence rate is 3-5 in 1000 live births. It is more common in females.

Types

Fully segmented or non-incarcerated (65%), Semi-segmented (22%) and Incarcerated (12%). Our patient had fully segmented type deformity. Complications of this deformity include pulmonary restriction, neurologic problems and premature death if unrecognized/untreated.

Associated anomalies

- 1) Rib and chest anomalies
- 2) Occult intraspinal anomalies
- 3) Heart, Foot, Urinary anomalies
- 4) Rectal atresia,
- 5) Radial club hand
- 6) Congenital dislocation of subluxation of hip
- 7) Facial asymmetry.

Syndromes

- 1) Associated syndromes include
- 2) Klippel-Feil syndrome
- 3) Goldenhar syndrome
- 4) Aicardi syndrome

- 5) Gorlin syndrome
- 6) Jarcho levin Syndrome.

Management

Non operative: Observation, Bracing, Halotracting.

Surgical management:

- 1) Hemivertebrae Excision (<5yrs)
- 2) Convex hemiepiphysiodesis/hemiarthrodesis.

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