



CLINICAL GUIDELINE

Congenital Hemivertebrae

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA

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Background

Hemivertebrae is a condition where one half of the vertebra completely fails to form. It is the most common aetiology of congenital scoliosis (McMaster 1986). Hemivertebrae may be fully segmented, partially segmented, or unsegmented.

The type and location of hemivertebrae can affect the likelihood and the rate of progression of scoliosis (Kaspiris 2011). The degree of scoliosis tends to worsen as the child grows (Grimme 2007). The rate at which scoliosis develops depends on many factors including the type of hemivertebrae, number and position of hemivertebrae in the spine, ipsilateral v/s bilateral in case of multiple hemivertebrae and age of the patient (Kaspiris 2011).

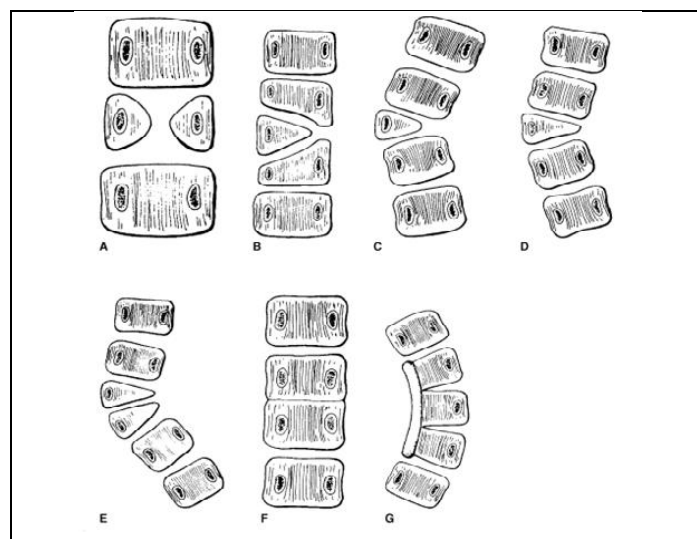
Antenatal 3D ultrasound is potentially a useful modality to detect the exact location, type and hence determine prognosis in hemivertebrae (Volpe 2018, Wei 2013).

In some cases scoliosis can progress rapidly and hence can benefit from early orthopaedic referral. Surgical intervention is most commonly used when the hemivertebrae is located from the thoracolumbar to lumbosacral junction (Shawen 2002).

Even though most hemivertebrae occur in isolation, a significant number could be associated with GIT, CNS, renal, other vertebral and cardiovascular anomalies. They can also be part of various genetic syndromes (Bolini 2010).

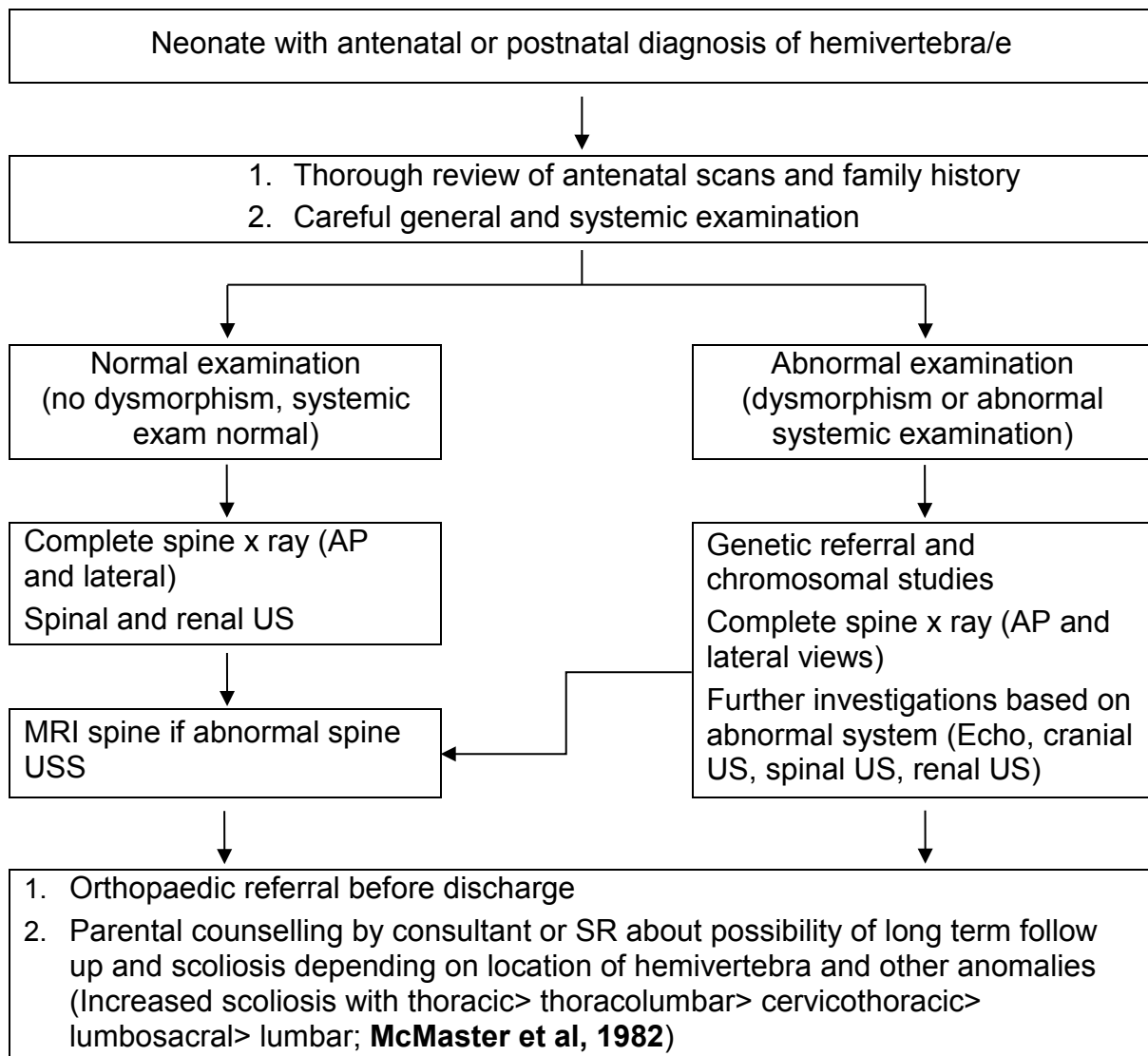
The mainstay of treatment remains early diagnosis and intervention before severe curvature and deformity occur (Hedequist 2007). Hence, early and regular review by the orthopaedic team is essential.

Variations of Hemivertebrae




Management of a Neonate with Antenatal/Postnatal Diagnosis of Hemivertebrae

(Jape G, Rao S, Minutillo C, Thonell S, 2011)



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