



Congenital Scoliosis, Riyadh Experience

Mohammad Alfawareh, Walid Attia,
Mohammad Halawani, Khaled
Almusrea

Spine Department, Neuroscience Center
King Fahad Medical City
Riyadh Saudi Arabia

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Back Ground

- Congenital scoliosis due to early embryonic defect
 - Vertebral formation: hemivertebra
 - Segmentation: unilateral bar, blocked vertebra
 - Combined
- Progression depends on:
 - Type
 - Unsegmented hemivertebra the least progression
 - combination the severest
 - Location
 - Thoracolumbar more than thoracic
 - Age
 - First 5 years of life
 - During puberty

Back Ground



- Associated abnormalities:
 - Neuronal element 40%.
 - Congenital heart defects in 25%;
 - GUT in 20%
 - MSK and others.
- All add challenges to the management and outcome.



Purpose

- Introduce our series of congenital scoliosis
- Discuss way of management
- Share the outcome at final follow up.



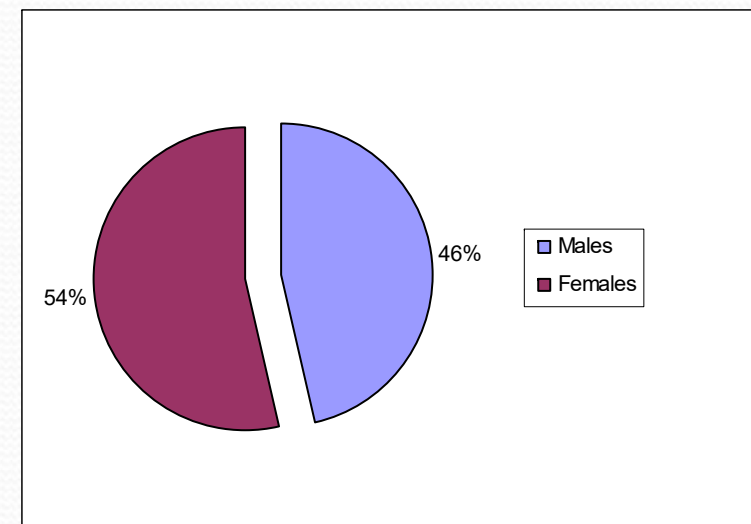
Materials & Methods

- A retrospective analysis of prospective data
- From January 2009 to December 2010
- Inclusion criteria
 - Subjects with congenital scoliosis
 - Before the age of 10 years
 - Underwent surgical correction with expandable prosthesis
 - Reasonable follow up



Classification

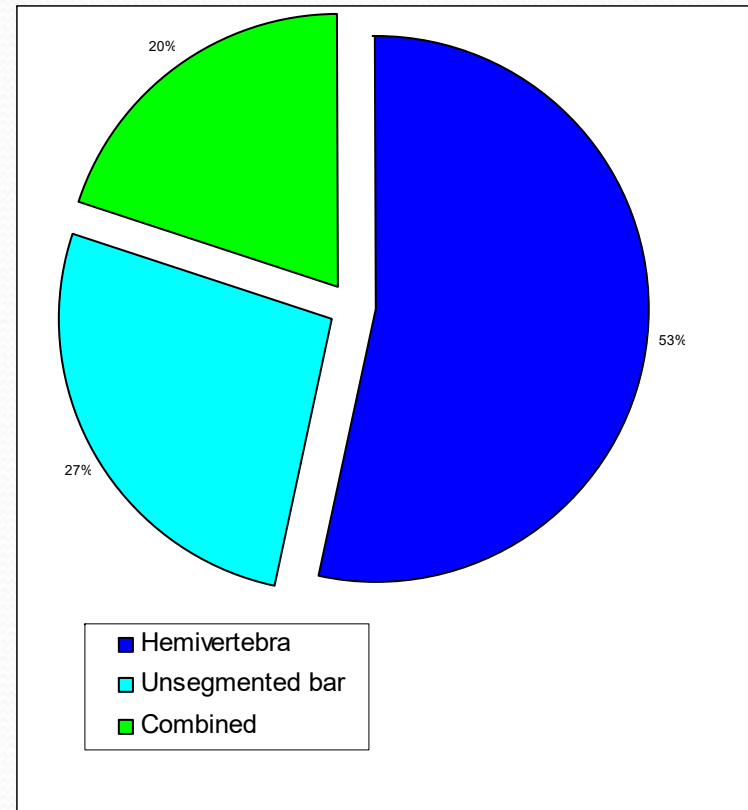
Total number	15
Males	7
Females	8
Mean Age	4.5 years
Mean Follow up	18 months





Results

Total number	15
Hemivertebra	8
Unsegmented bar	4
Combined	3

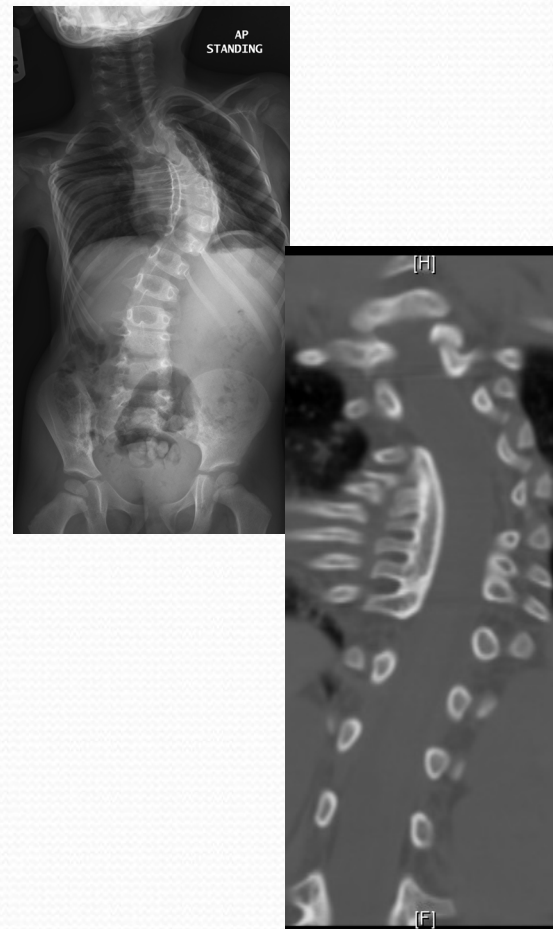


Types

hemivertebra



Unsegmented bar



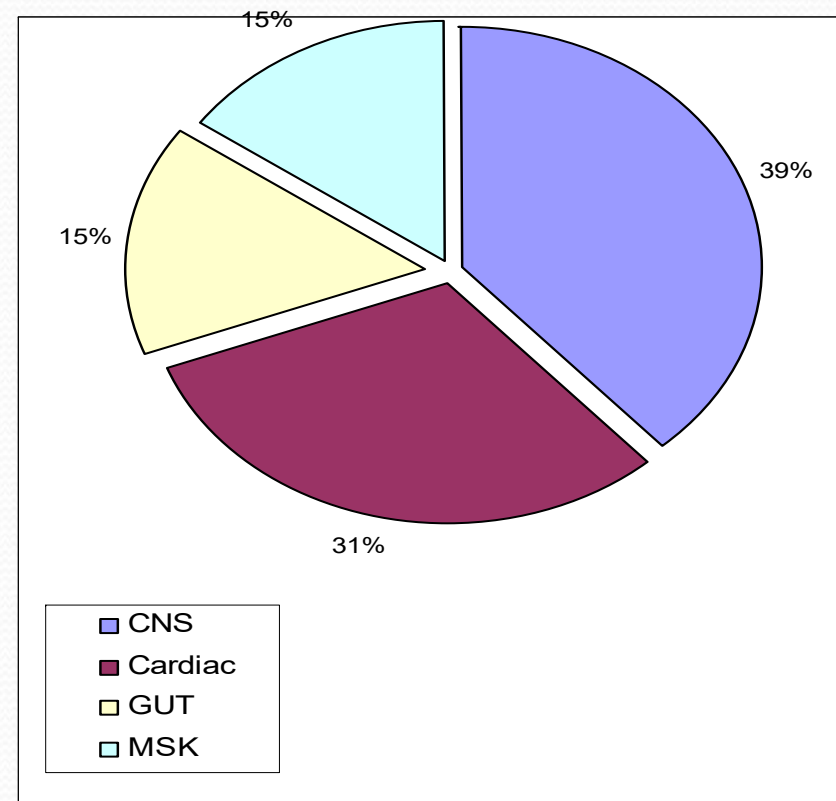
Combined





Associated abnormalities

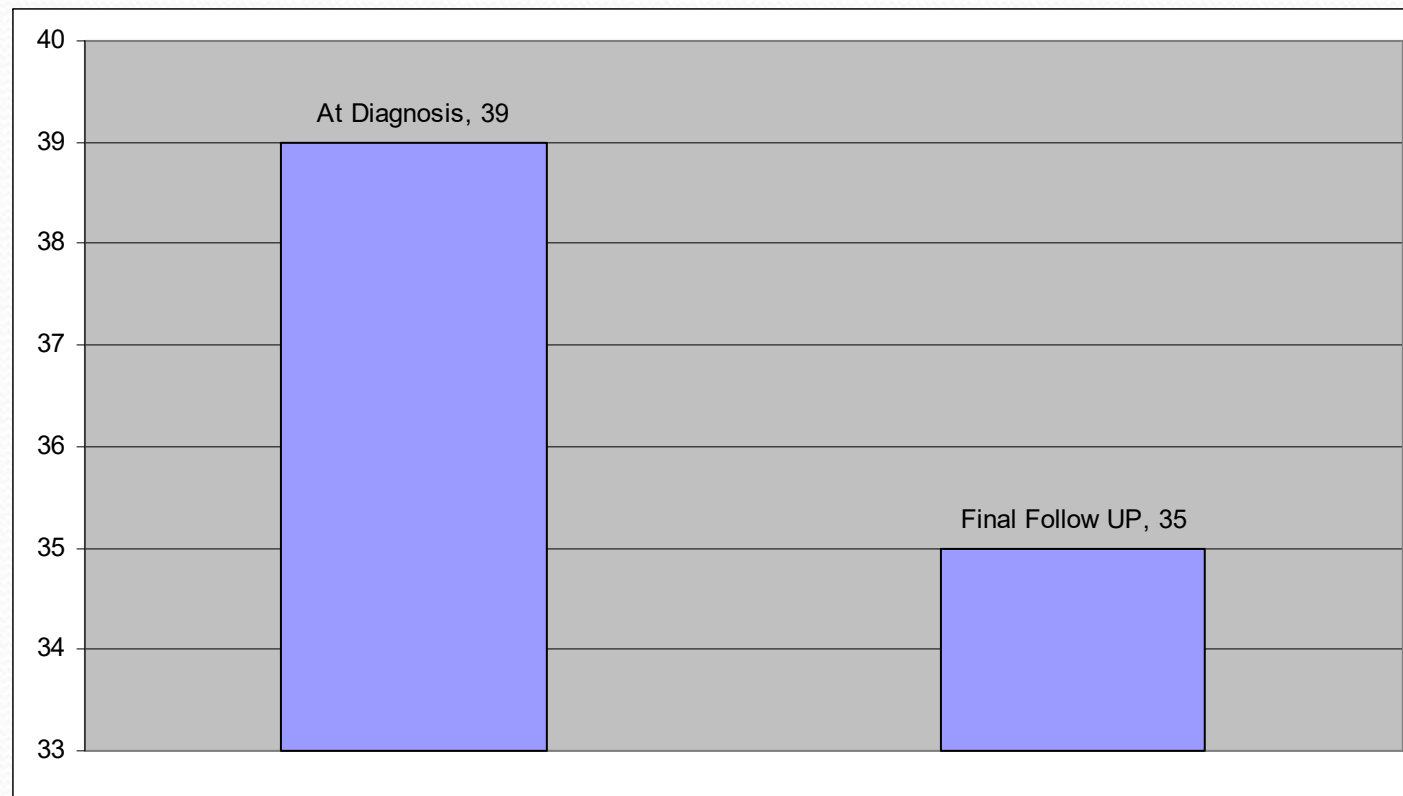
Total number	13/15	85%
CNS	5	33%
Cardiac	4	20%
GUT	2	13%
MSK	2	13%





Cobb Angle

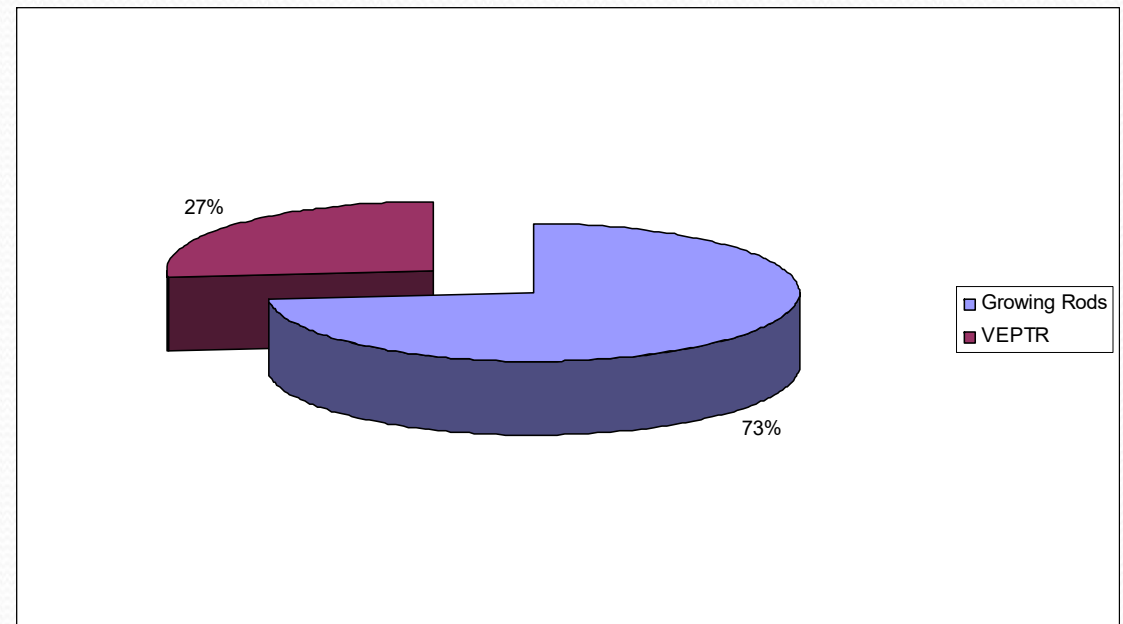
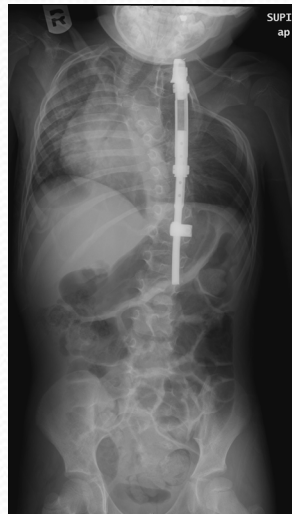
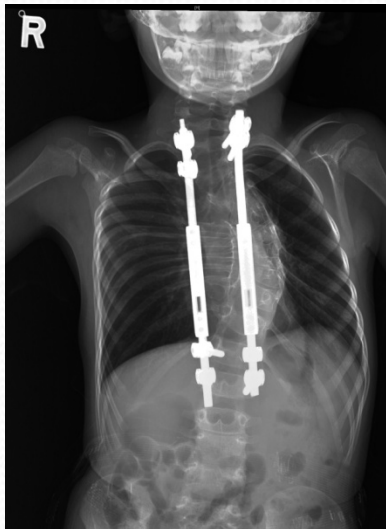
At Diagnosis	Final Follow UP
39	55





Implant

Growing Rods	VEPTR
11	4





Conclusions

- Congenital scoliosis can be stabilized by expandable prosthesis.
- Both growing rods and VEPTR can be used.