

Case discussions

ICEOS 2009

Istanbul

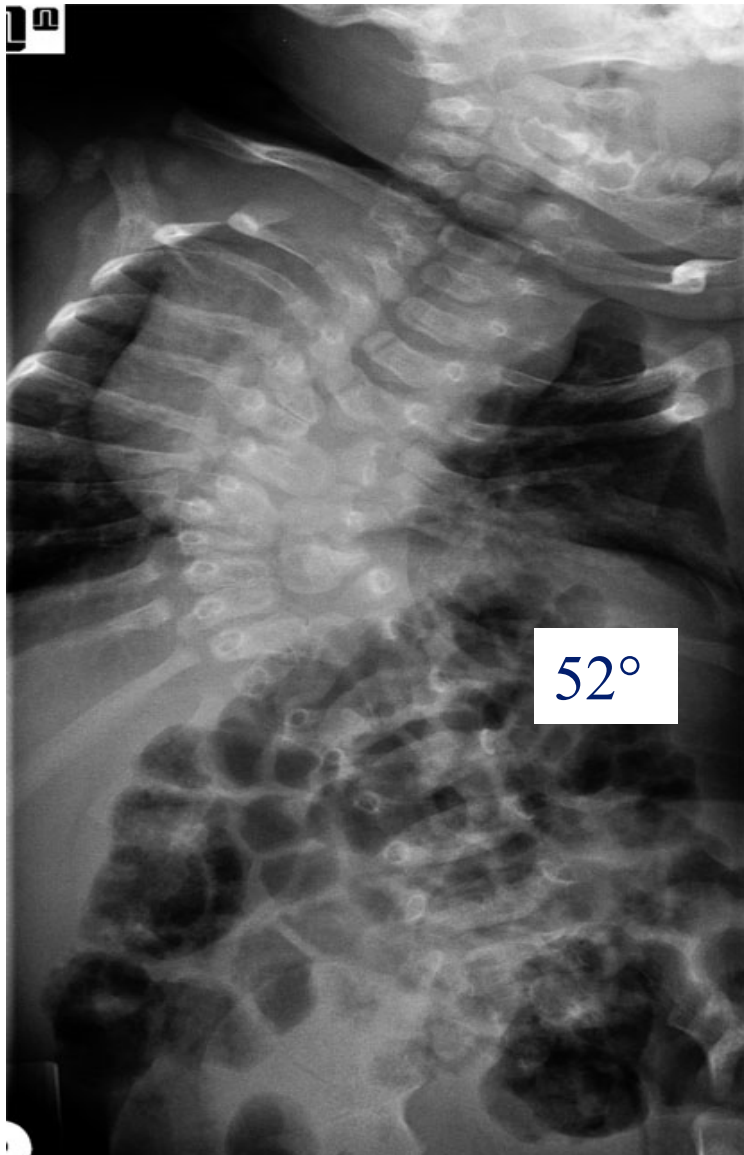
Jack Flynn, MD

Associate Chief of Orthopaedic Surgery

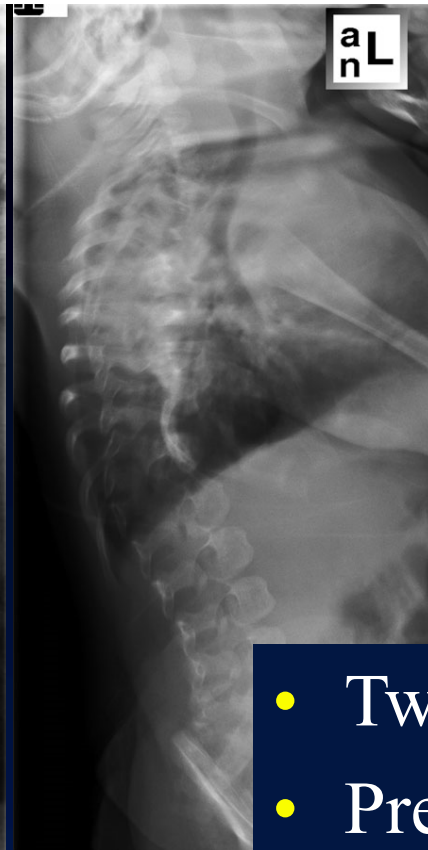
Children's Hospital of Philadelphia

Associate Professor of Orthopaedic Surgery

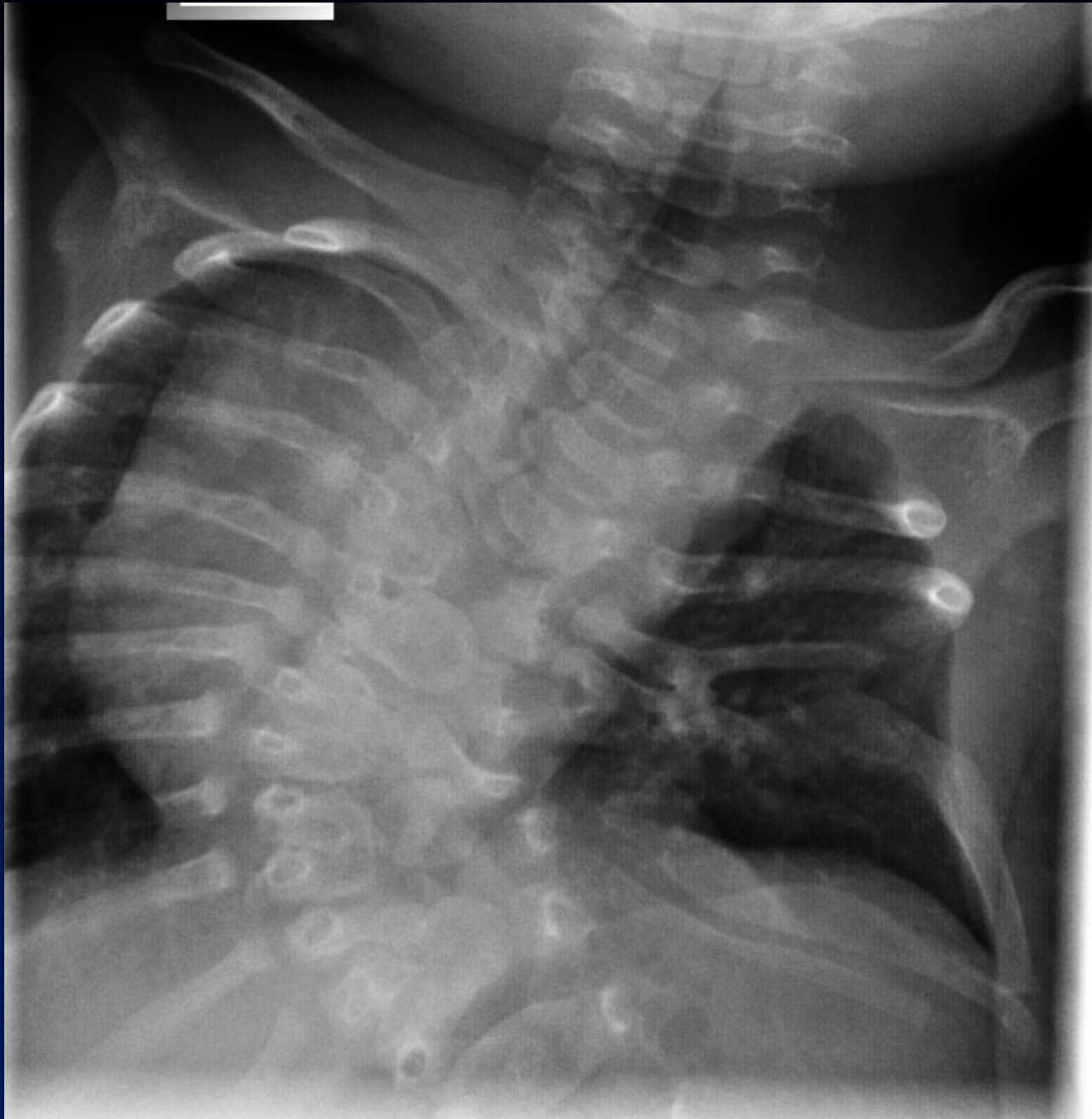
University of Pennsylvania School of Medicine



2 months old
December, 2005



- Twin boy
- Prenatal ultrasound noted polycystic kidney and congenital scoliosis
- Otherwise healthy at birth
- No respiratory support required



This cervico-thoracic spine film at age 4 mos most clearly shows the vertebral and rib anomalies

CT scan at 4 months of age

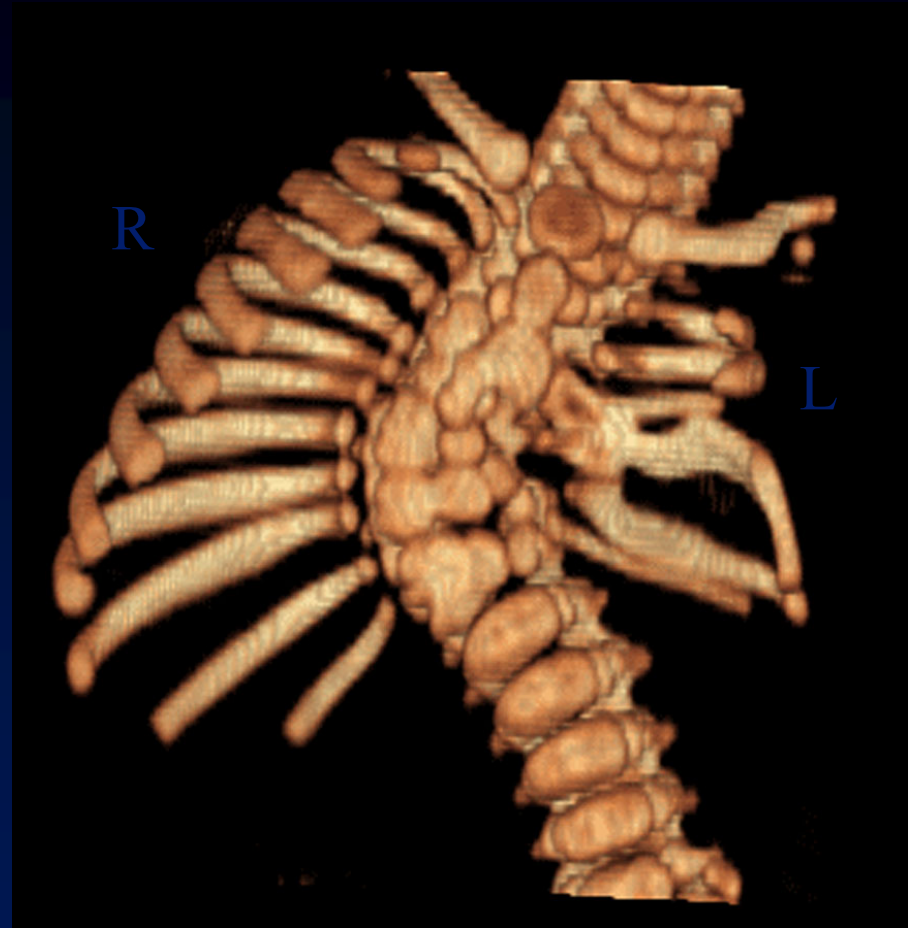
60° congenital scoliosis

anomalies of multiple left-sided ribs and vertebra affecting the lower six thoracic vertebral bodies and multiple ribs

poor lung aeration on the left side

left lung volume 53 cc

right lung volume 88 cc

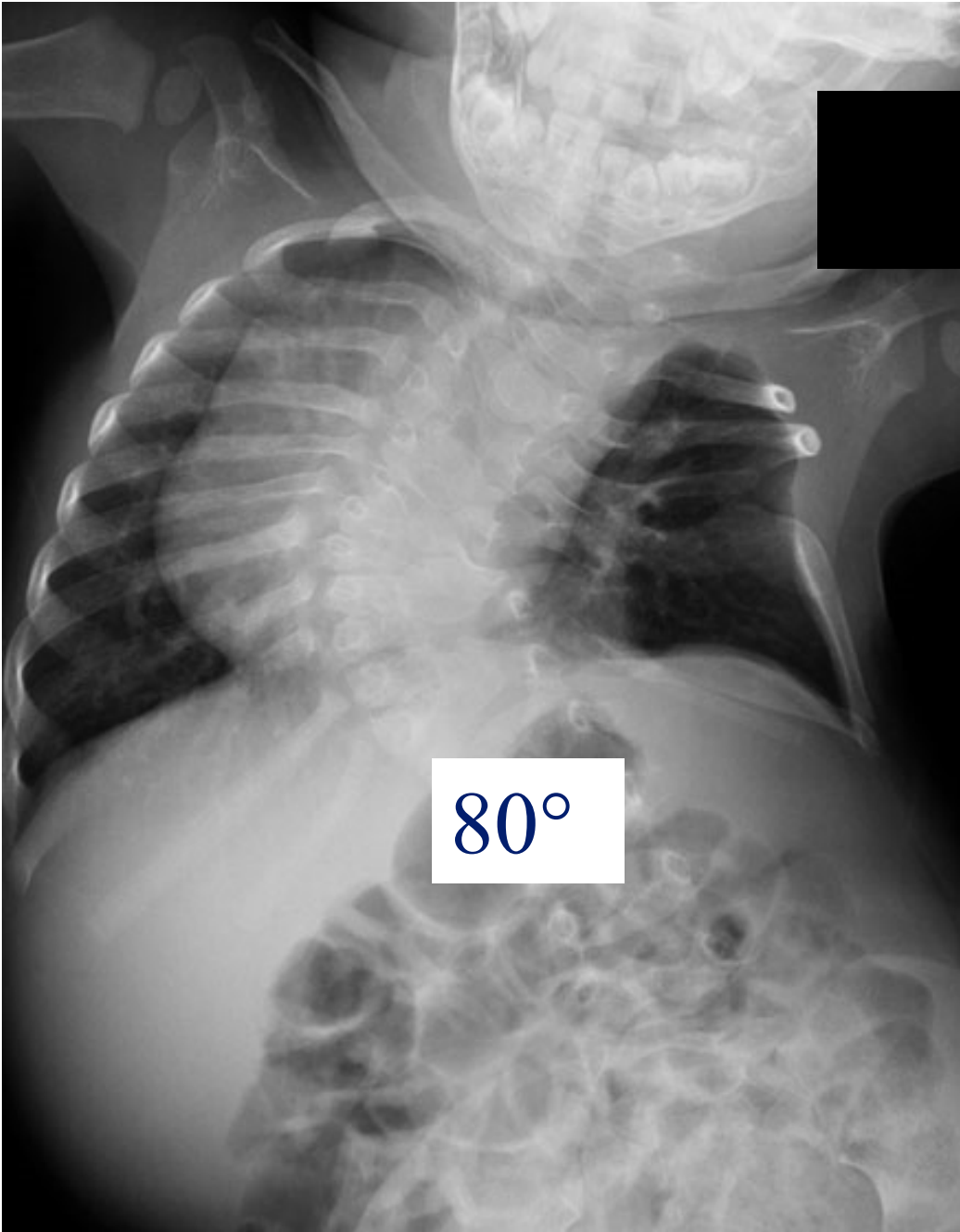




80°

What
would be
your plan?

Pre-Operative: 10 months old



Index surgery 11 months of age

80°

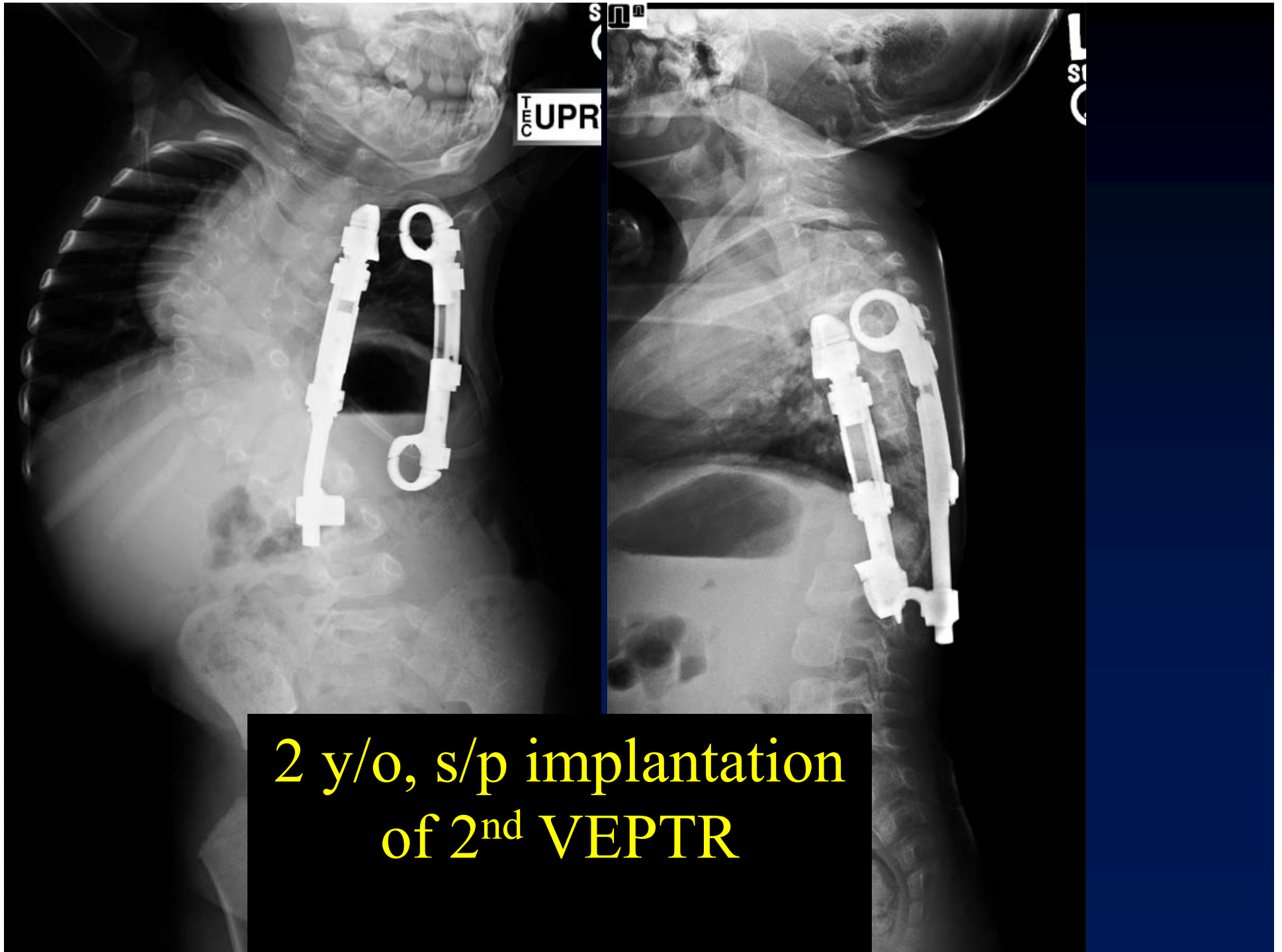
- Left thoracotomy
- Opening wedge thoracostomy x 2, splitting fused ribs in mid thorax
- Implantation of rib to rib VEPTR
- Vicryl mesh pleural repair

58°

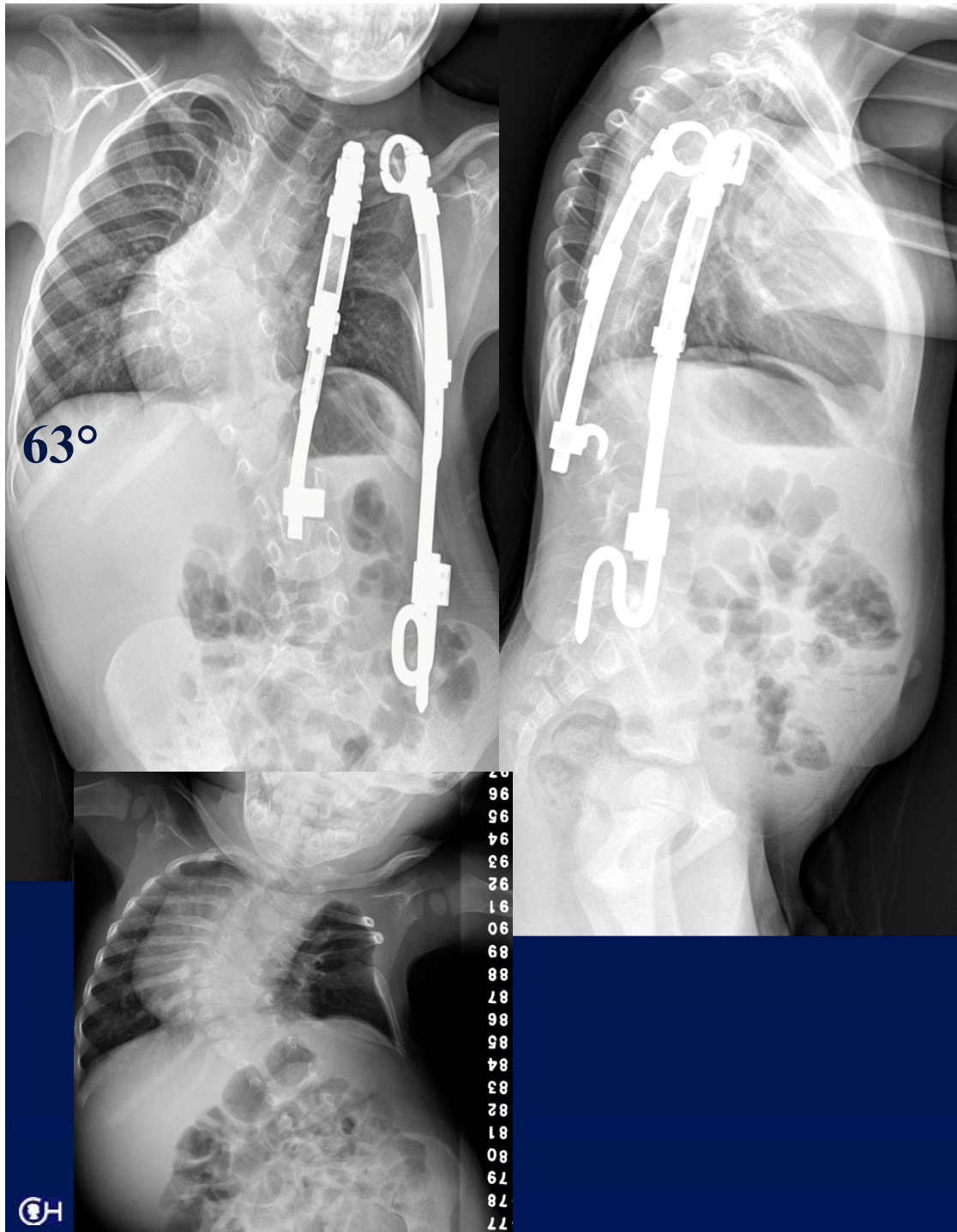


1 mo post op– 1 yr old

Plan: 6 months after
index surgery, add rib to
spine device, and expand
rib to rib device



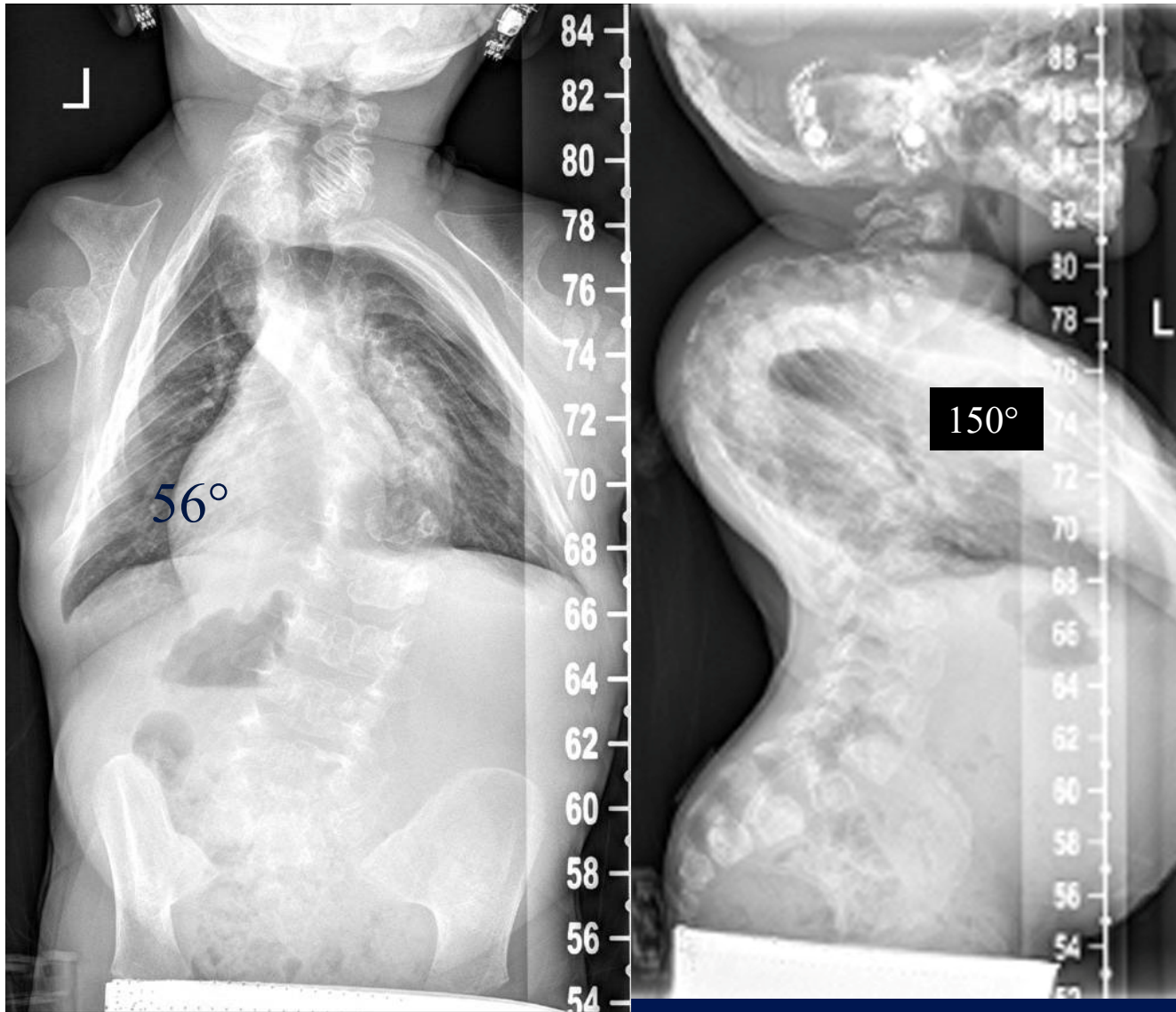
2 y/o, s/p implantation
of 2nd VEPTR



5 y/o

4 yrs after
index surgery

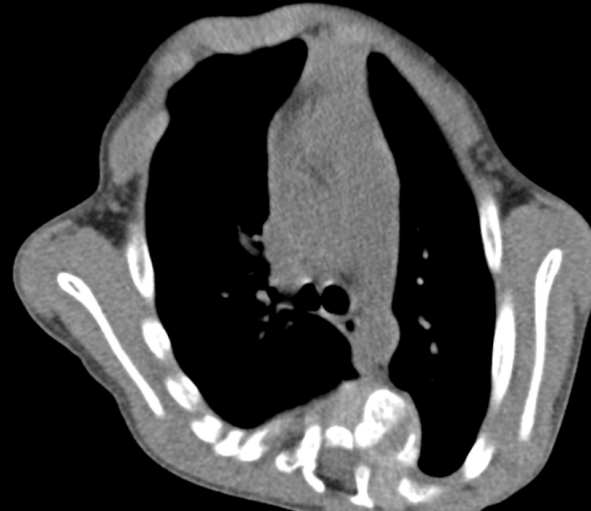
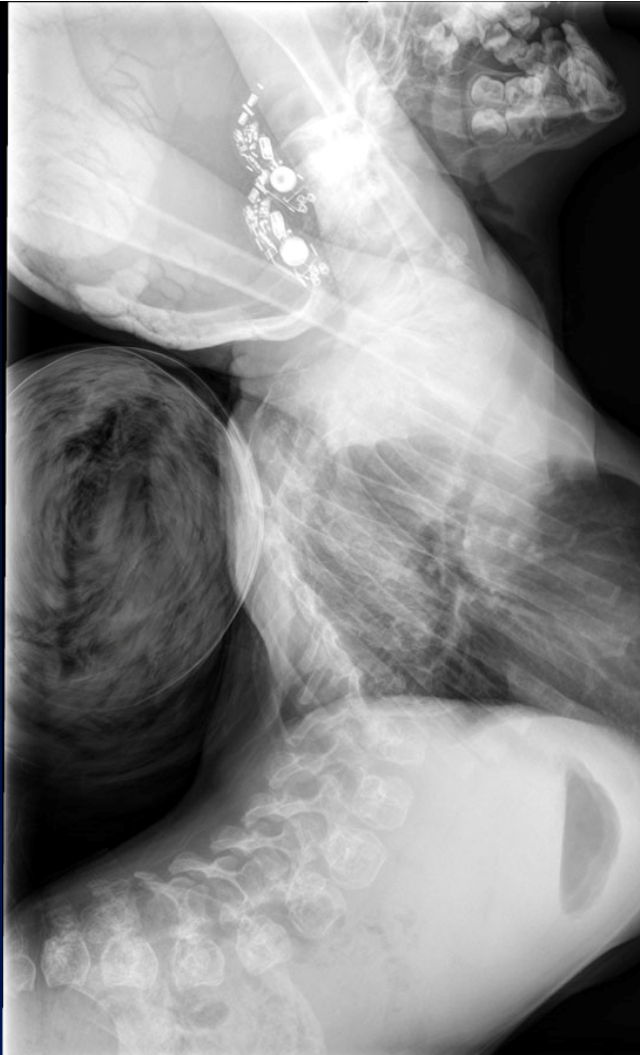
rib to rib has
been
exchanged for
rib to pelvis

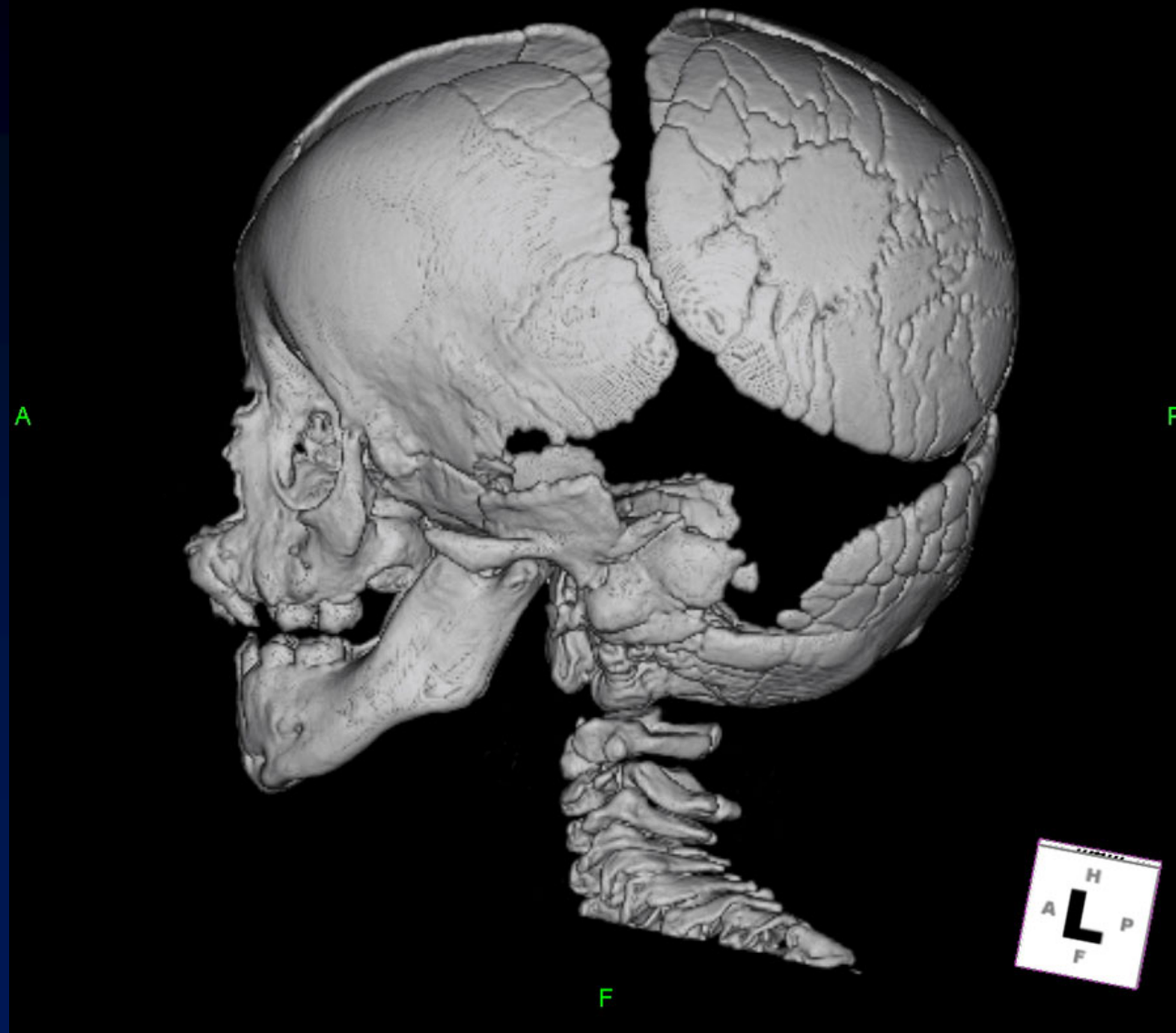


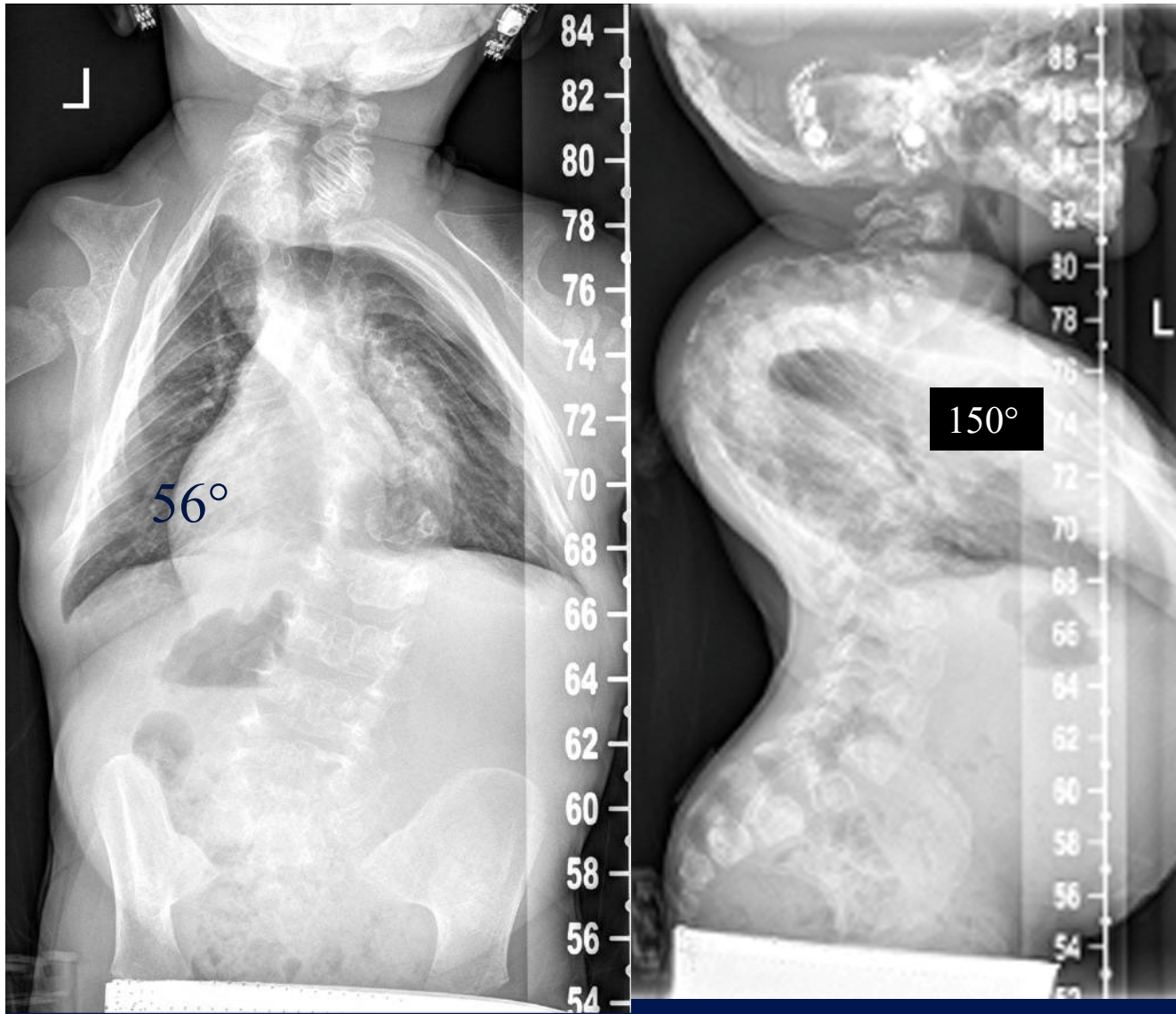
- 8 y.o. male from 700 miles away
- Cleidocranial Dysostosis Syndrome
- underwent brace treatment without effect on the deformity

Spirometry (BTPS)

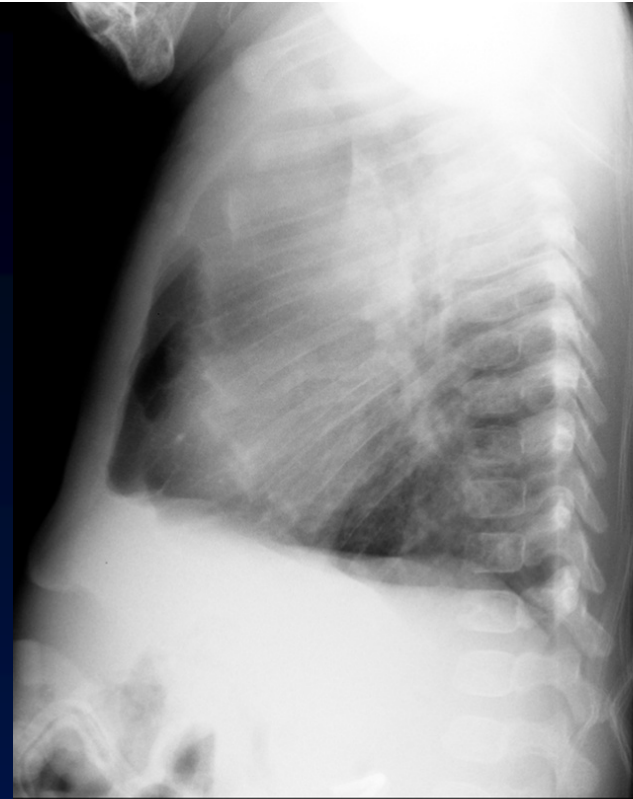
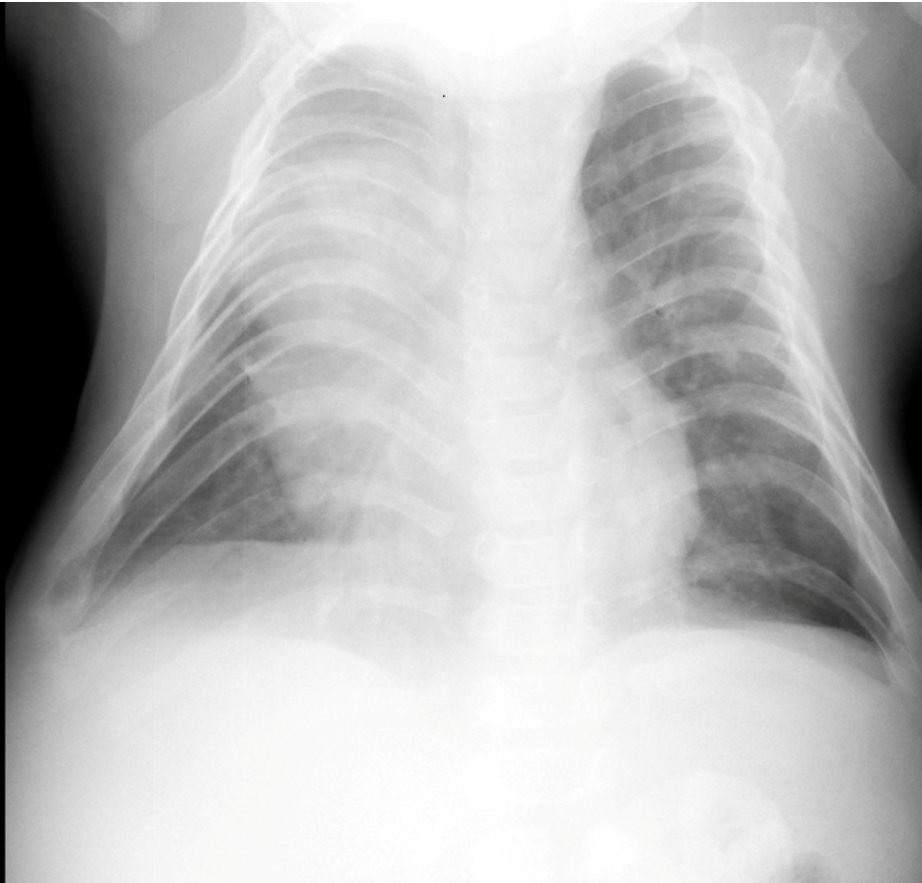
- FVC 75%
- FEV1 57%



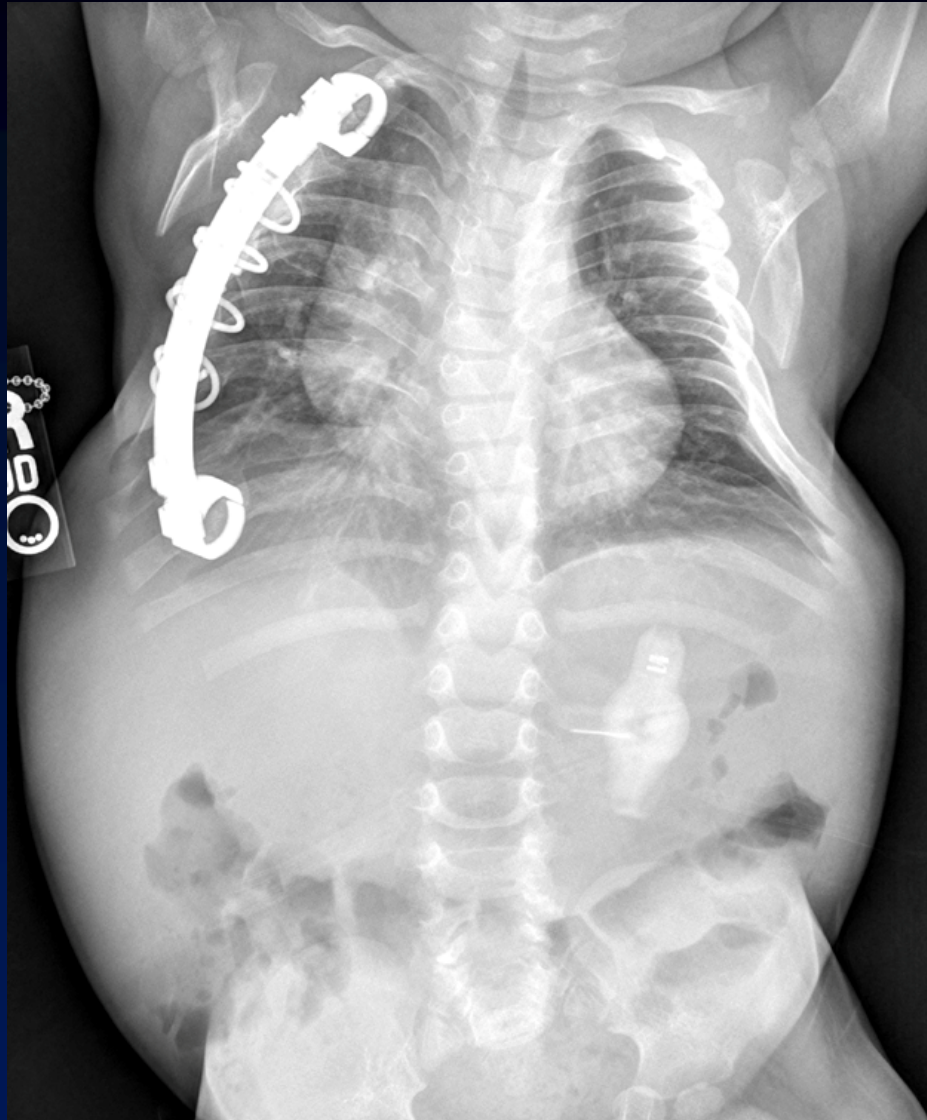




- 8 y.o. male
- Cleidocranial Dysostosis
- What is your plan?

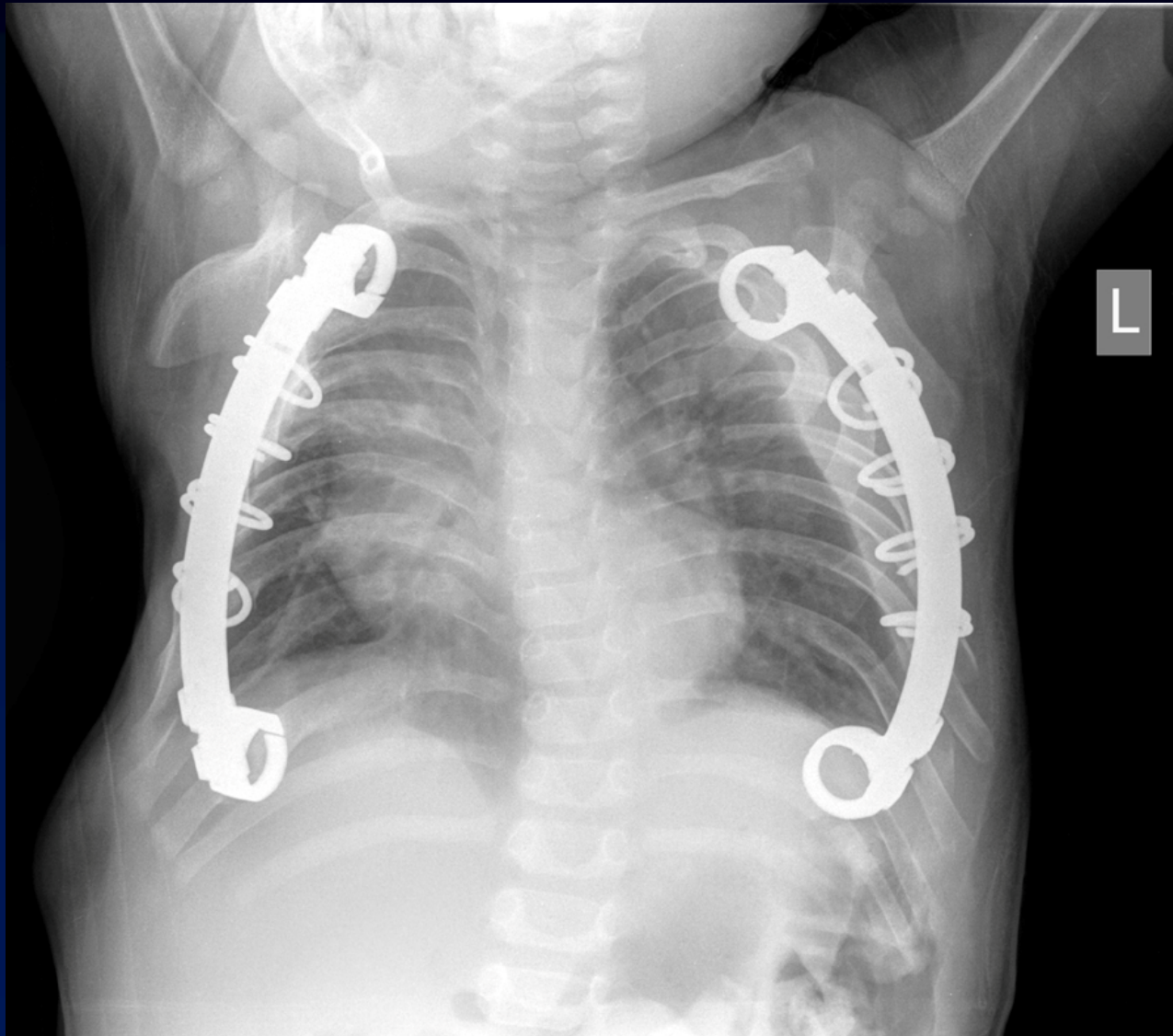


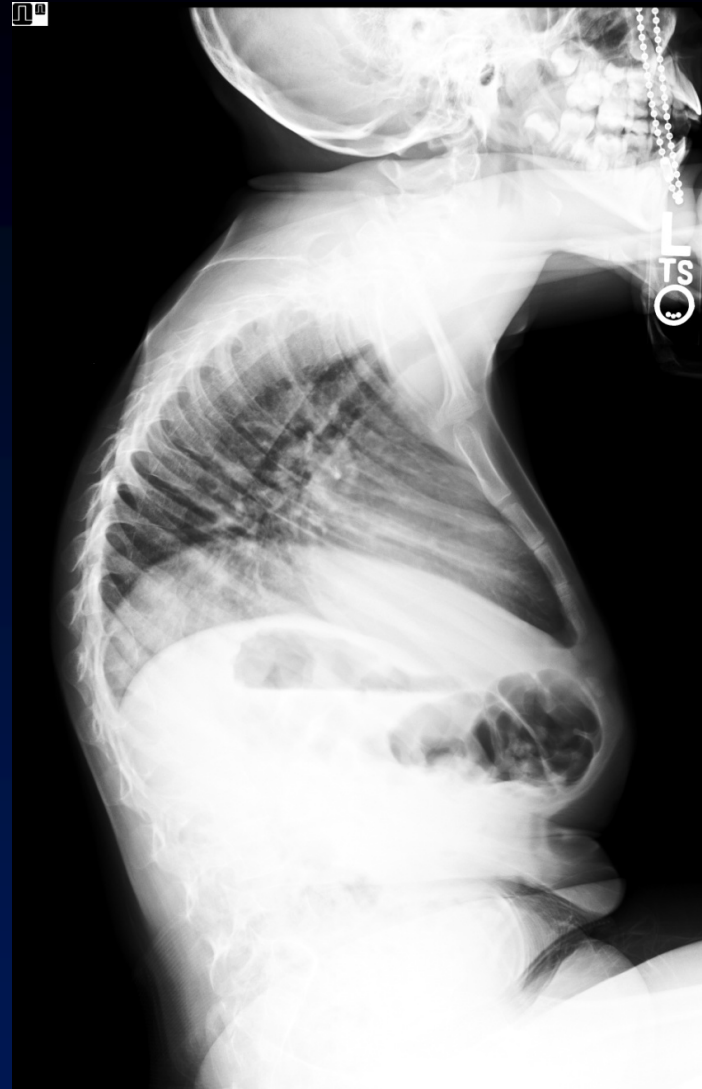
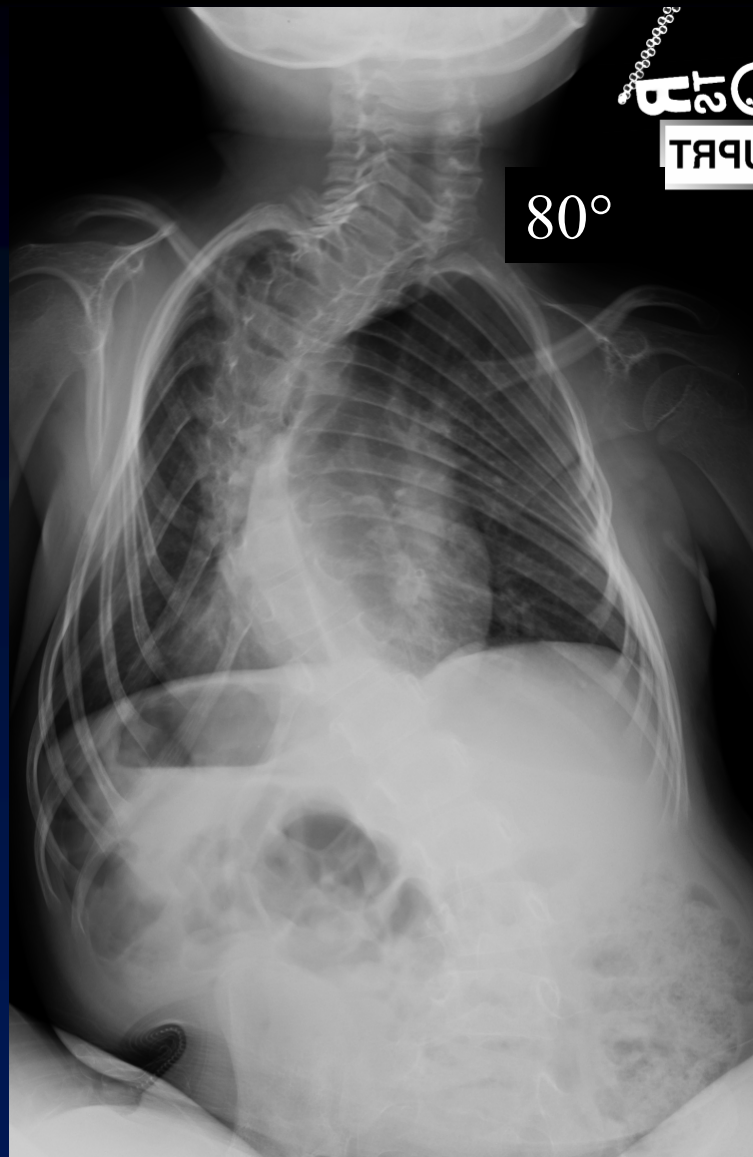
- 8 month old boy
- Chest wall deformity, similar to bell-shaped chest.
- Restrictive lung disease, with continual oxygen use.
- Status post genetics evaluation with no specific syndrome identified.



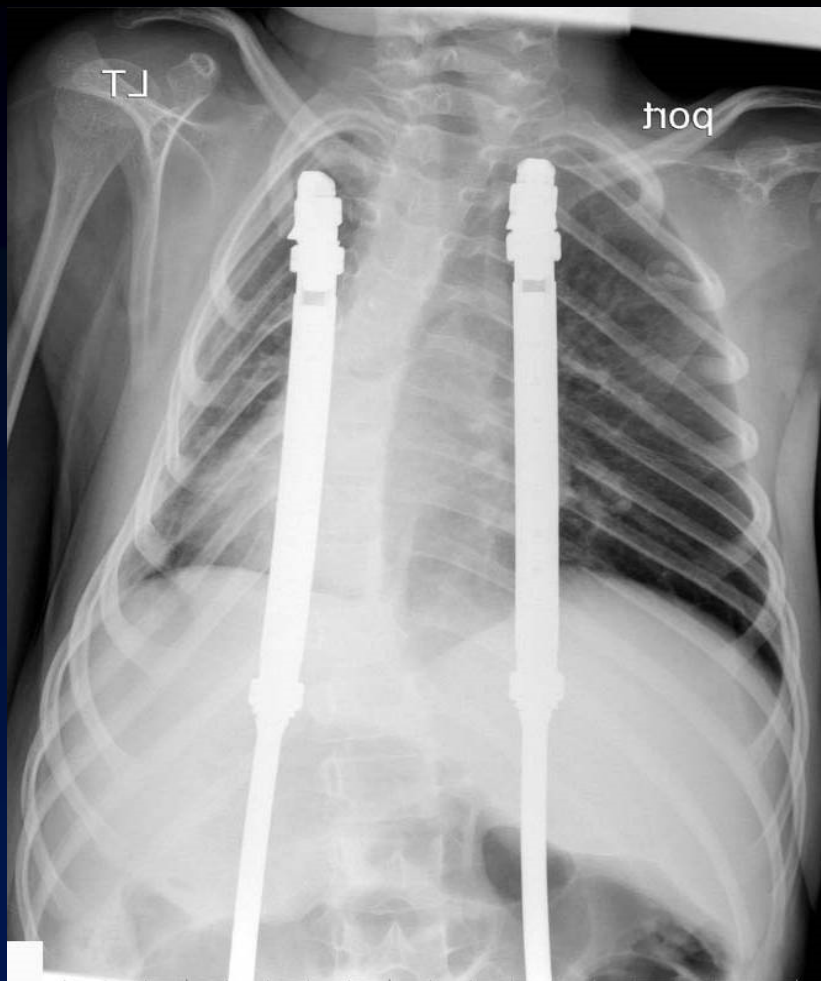
5 months post op from
1st surgery

Immediately after 2nd side

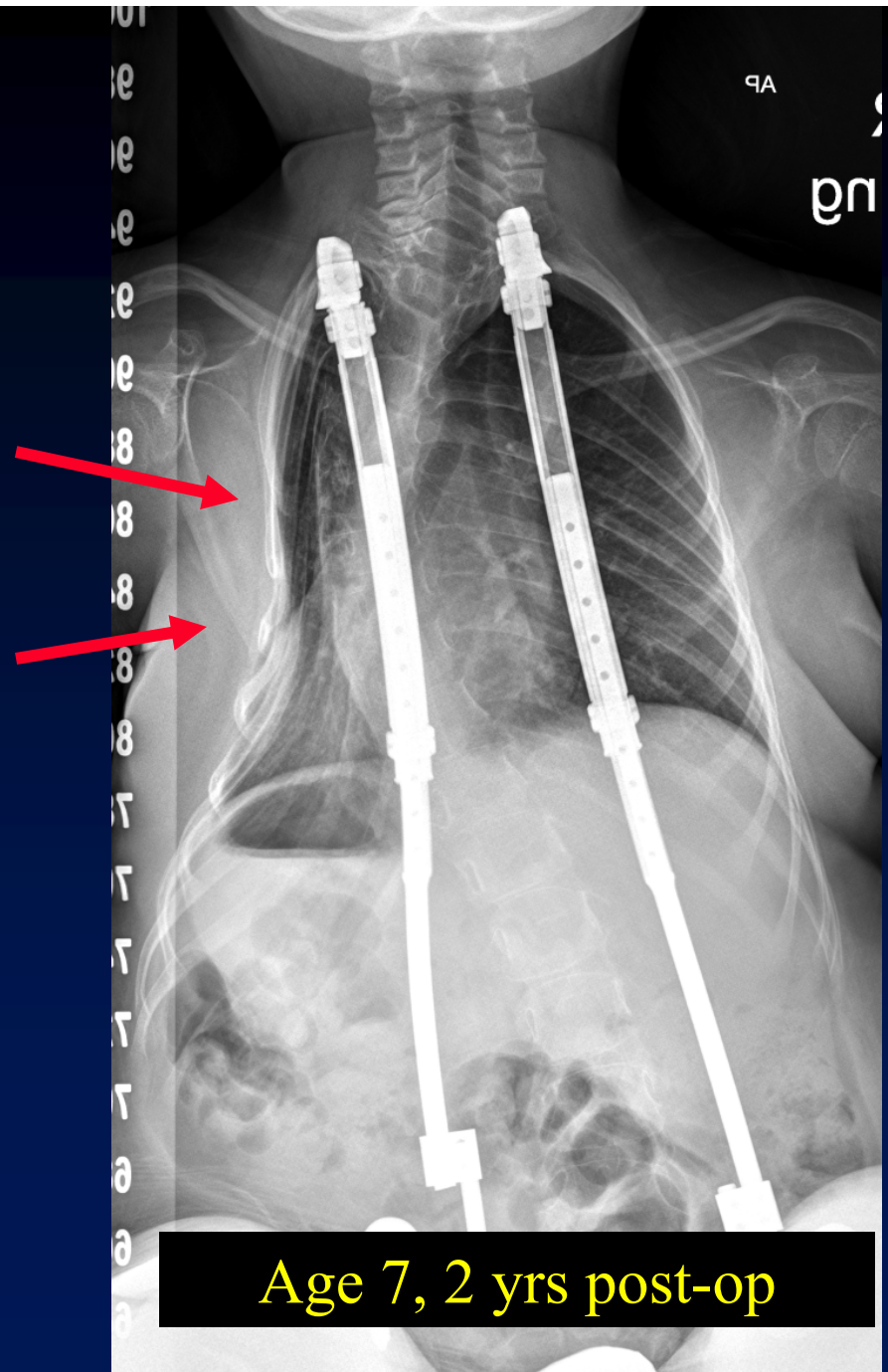




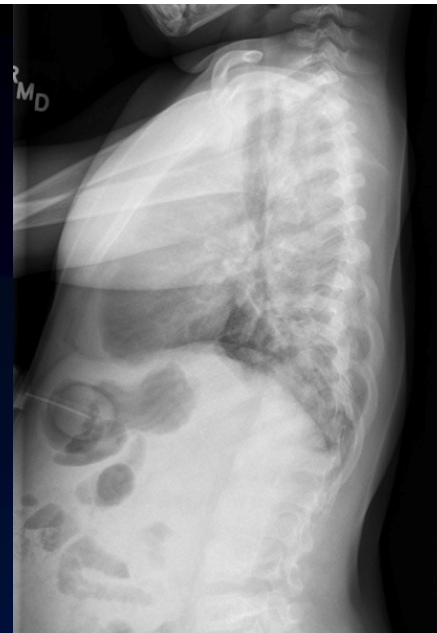
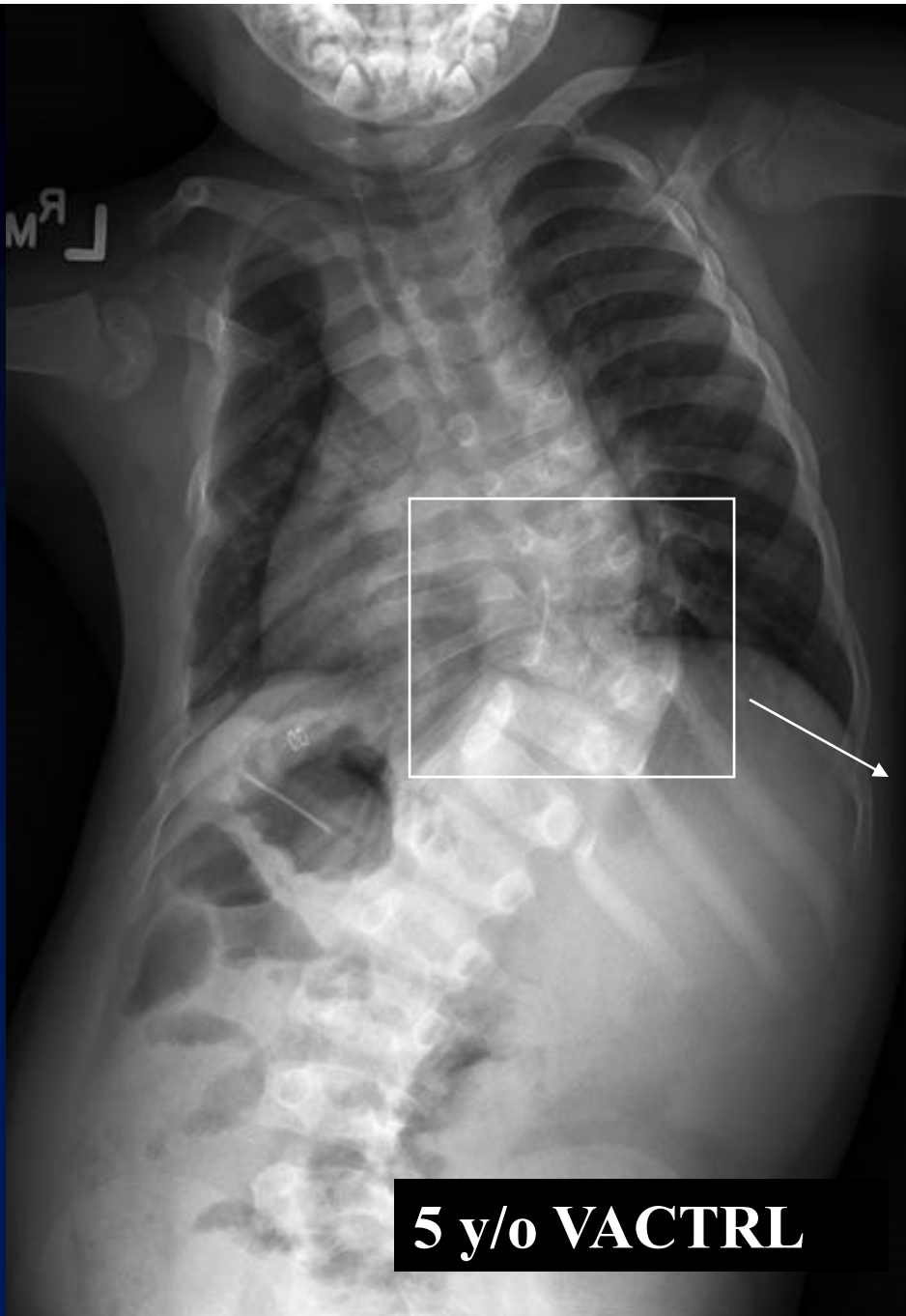
5 y/o with SMA type 2, declining respiratory function, progressive deformity

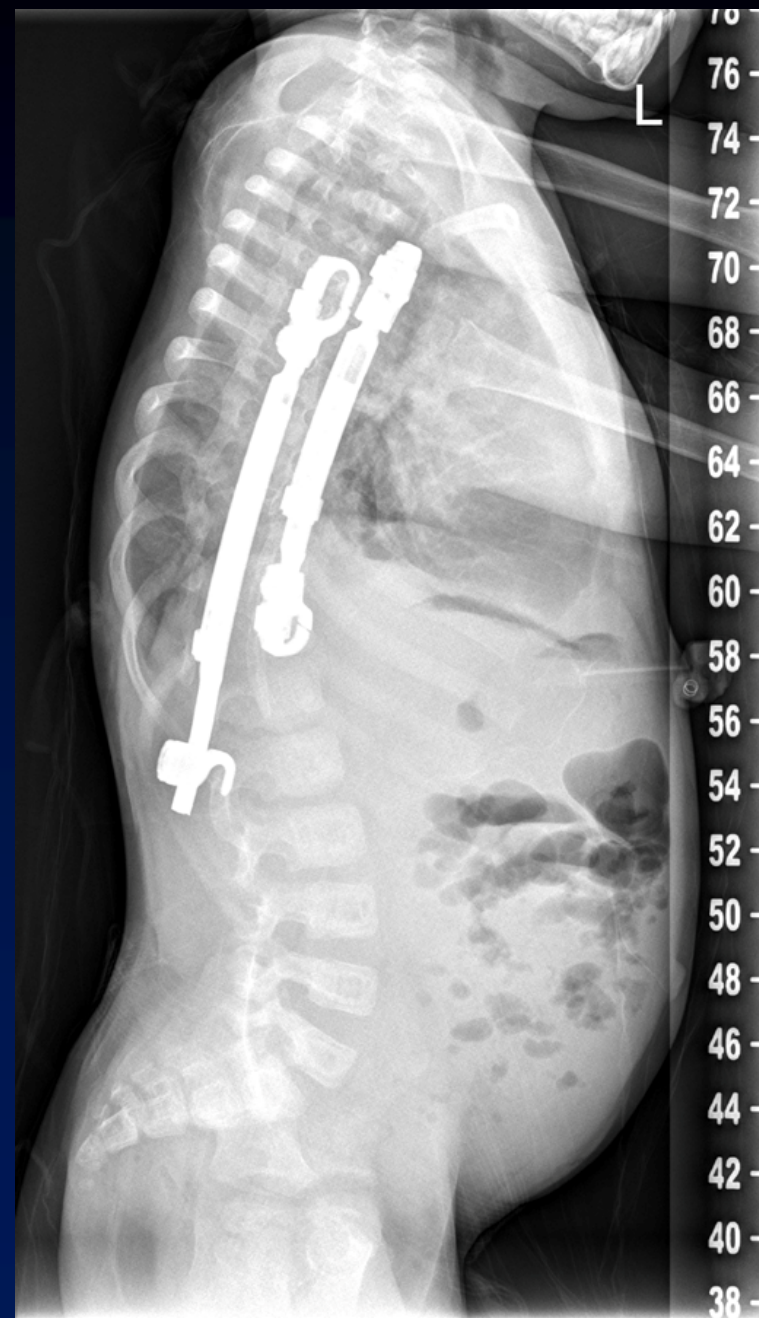
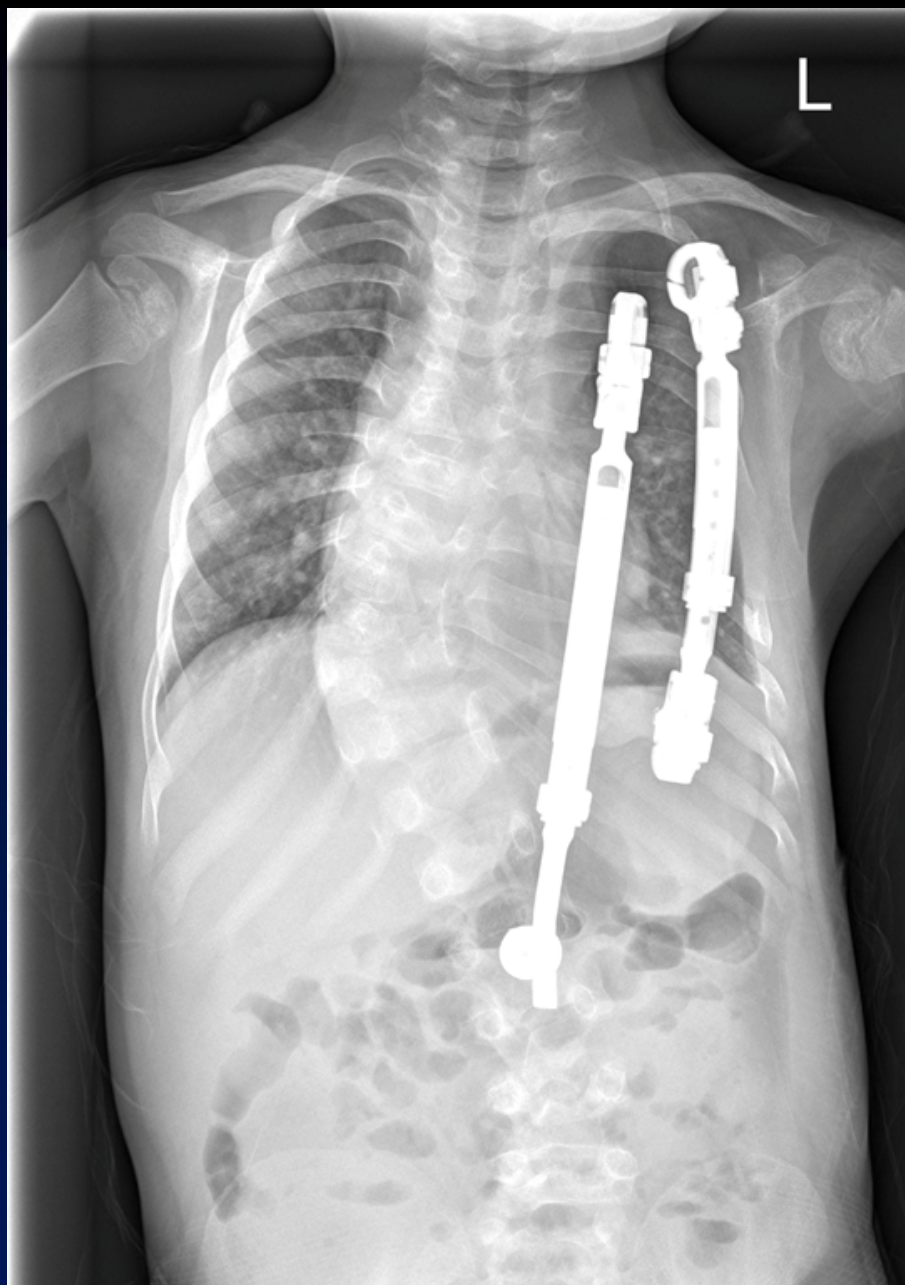


Immediately post-op



Age 7, 2 yrs post-op





Thank you

