

Lessons Learned

Something I Wouldn't do Again



JOHNS HOPKINS
MEDICINE

Paul Sponseller MD
November 18, 2016
2:33-2:36



Disclosures



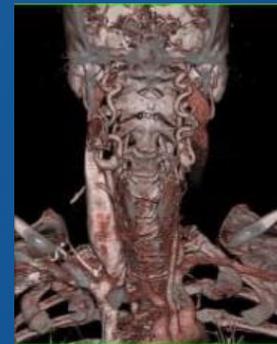
- Medical Education Reviews
- JBJS
- Depuy Synthes Spine: Research, royalties
- Globus: Royalties

Loeys-Dietz Syndrome Scoliosis with:

- TGF beta receptor abnormality
- Fragile aneurysms
- Ligamentous laxity
- Foot deformities
- Midline gaps:
- Hypertelorism
- -cleft palate
- Bifid uvula



JOHNS HOPKINS
MEDICINE



6 yr F. with Loeys-Dietz Syndrome

- Mild pain
- Neuro normal
- Rx?



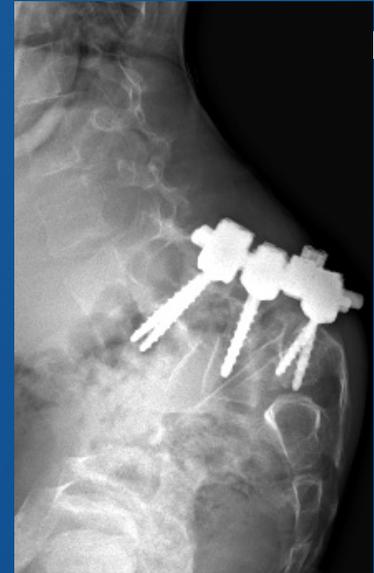
6 y F w. LDS

- 1 yr later
- Coned lat
- Treatment?



Loeys-Dietz Syndrome

- PSF L4-S1
- Lumbar screws plowed
- Lesson #1:
- Get symmetrical fixation above and below apex
 - L4-S2
 - Especially in EOS
 - Consider anterior support



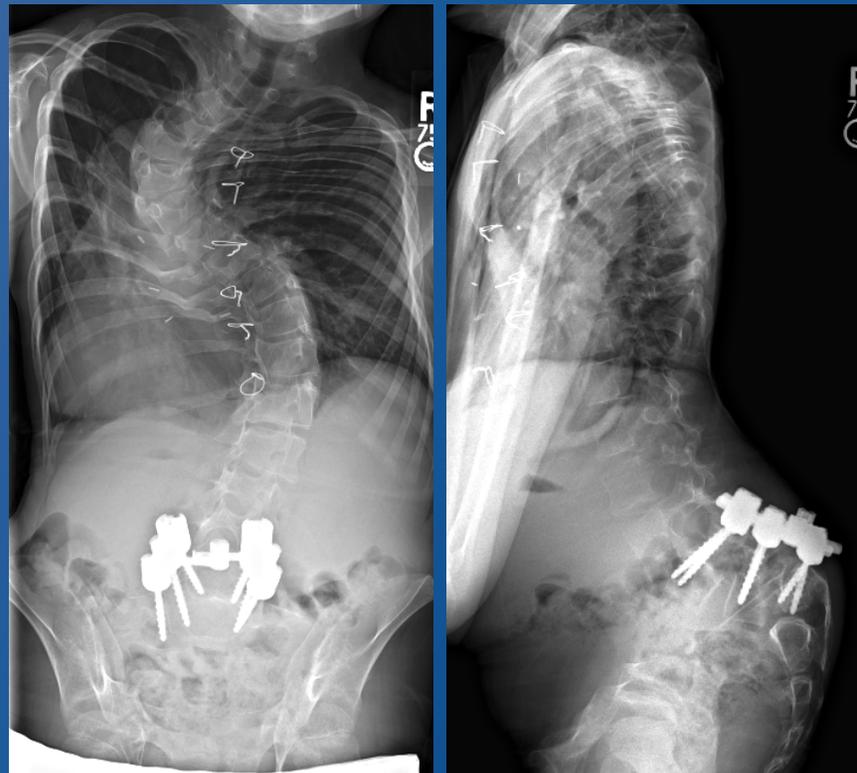
PKINS
NE

Later LDS patient



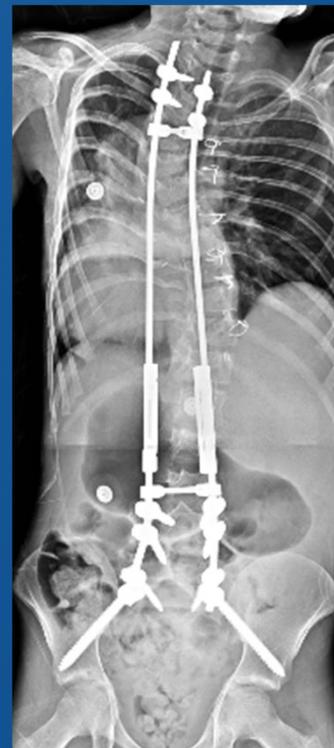
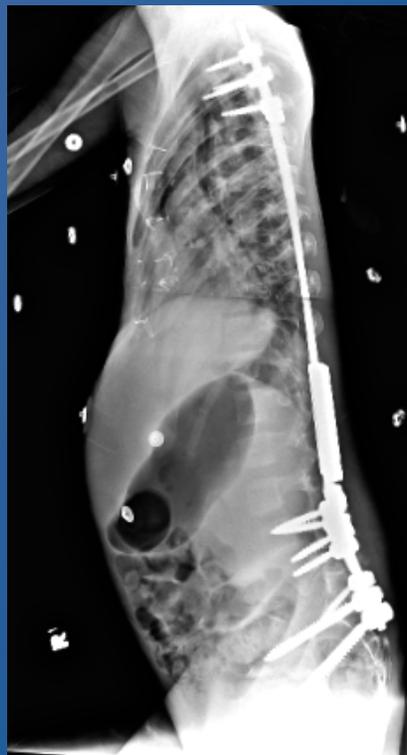
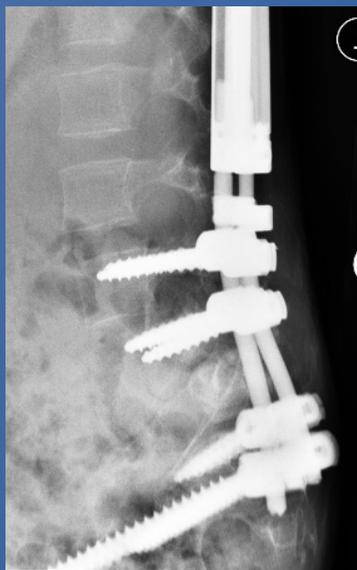
LDS

- Neuro NI
- Now Rx?



LDS

- Eggshell + GR



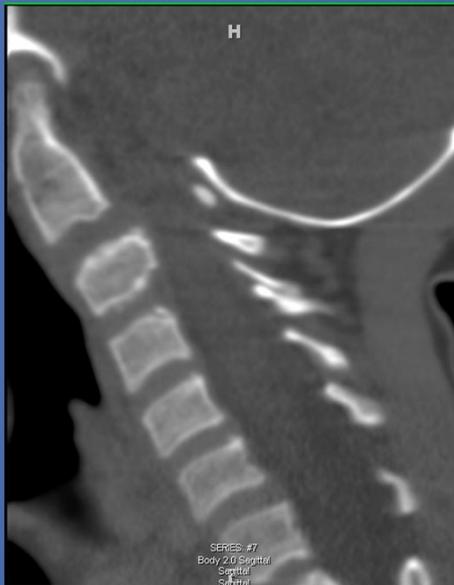
4 year Follow up

- No pain in C-T-L Spine
- Some clumsiness with typing
- Baseline finger contractures
- No weakness



Results

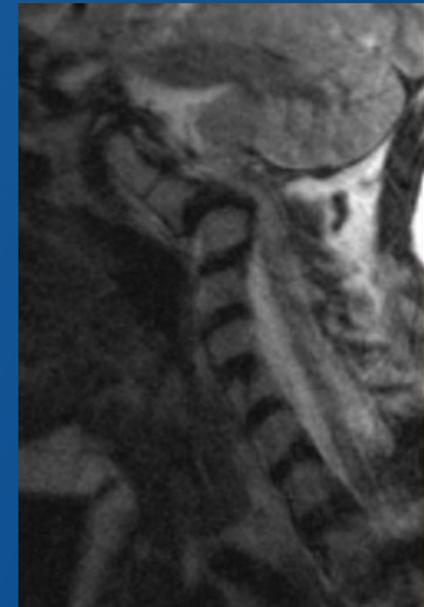
Cervical Spine



6 yrs old

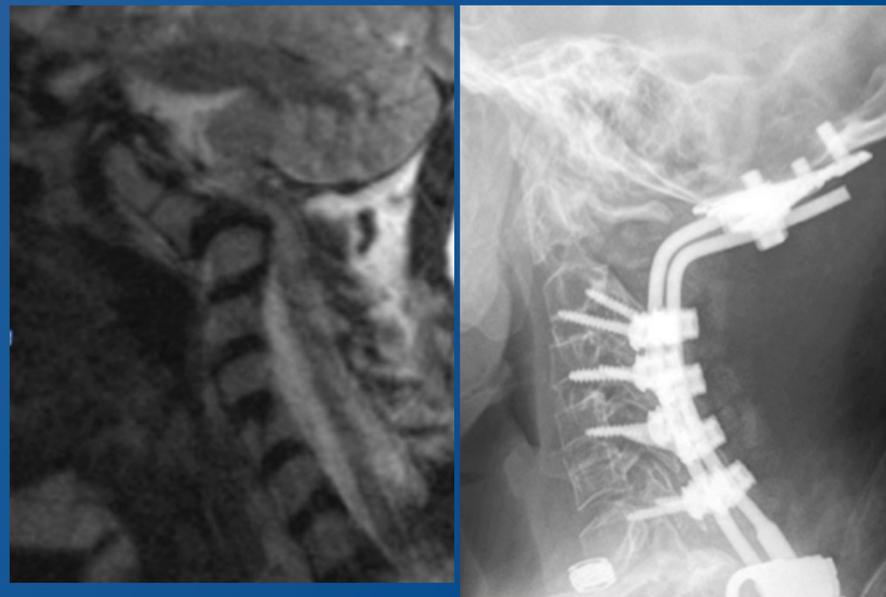


10 yrs old



Treatment

- Halo traction
- PSF Occiput-Sacrum
- One of 3 with LDS



Lesson Learned

- Consider whole spine in patients with Syndromes
- Check Cervical spine periodically in LDS
- Be alert for status changes

Thank you



A tale of two deformities: AIS vs NM

Neuro balance
Appearance
Low system risk
Ceiling effects

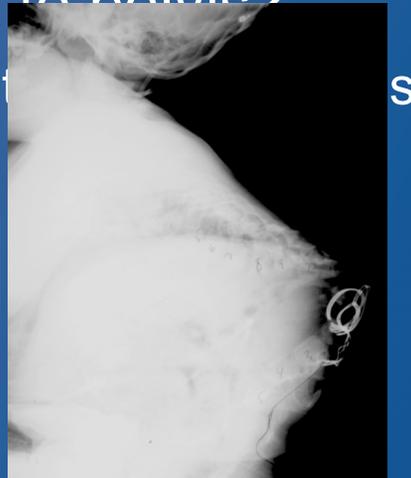


Little balance
Sitting
Poor homeostasis
Hi risk
Floor effects



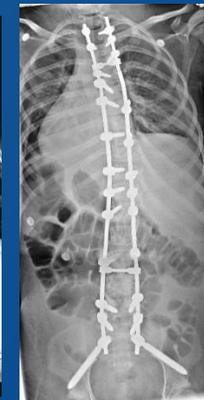
Kyphectomy

- Before age 10
 - Maximize growth; Fackler/Luque trolley
 - Fuse only at apex
 - Lindseth wiring doesn't work
- VEPTR to pelvis?



Spinal Muscular Atrophy

- Large curves at young age
- Global weakness
- Cognitively normal
- SMA- 2 most often require surgery
 - T2- pelvis
- Positive pressure ventilation
- Beware torticollis



Take-Home Points

- Most challenging Pediatric Spine patients
- Increased blood loss
- Infections are primarily gram-negative

Un-answered Questions

- Why do they bleed more?
- Why the gram –negative infections?
- How to improve patient selection?

Summary

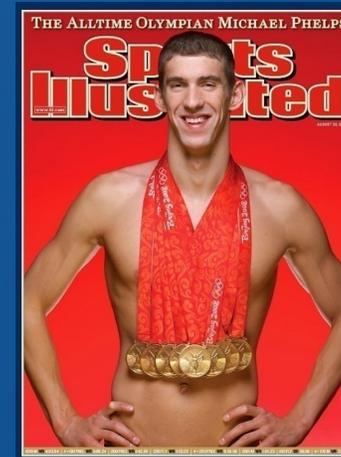
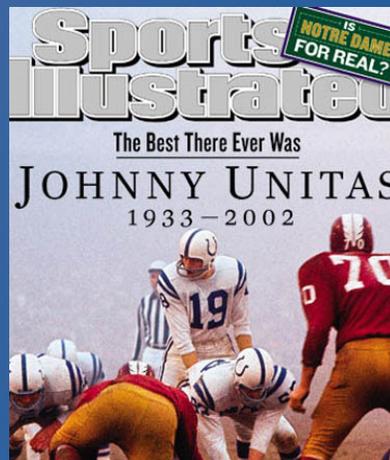
- Most challenging group of spine patients
- Match procedure, risk to go
– Balance, pain, progression
- Bleeding, infection key therapies
- Rarely fuse short
- Major life change if successful
- Most families choosing surgery
measurable satisfaction



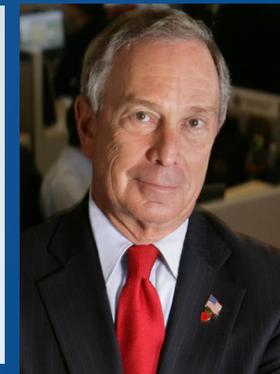
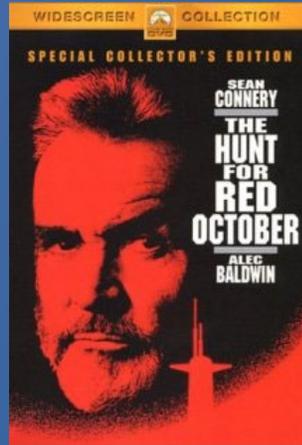
Thank you



Baltimore Heroes – sports



Baltimore Heroes (?)



Thank you

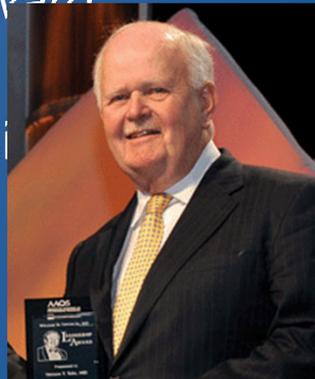
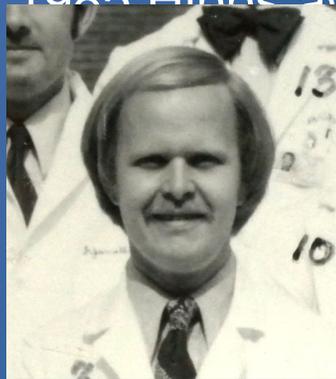


History

Vernon T. Tolo, MD



- Introduction to NM deformity
- Importance of Nutrition in NM spine fusion
- 1985 Hibbs award



- President, AAOS 2002
- President, POSNA 1994
- President, SRS 1995
- Editor-In-Chief, JBJS