Case Presentation

Our worst EOS Case ?

David S Marks FRCS FRCS(Orth)

Birmingham England

Disciaimer

+ **Consultancy Agreements : Depuy Synthes, Medtronic & Stryker**

+ **Speaker Bureau: Depuy Synthes, K2M, Medtronic & Stryker**

+ **Royalties: Depuy Synthes**

+ **Some instrumentation and / or techniques shown may not be approved for use in the US by the FDA but are approved for use in the UK**

Skaggs' Classification – 'Growth Preservation'

- Nonoperative
  - Observation
  - Casting (+/- traction)
  - Bracing
- Operative
  - Distraction based
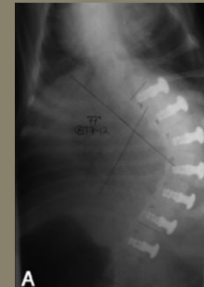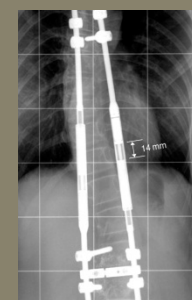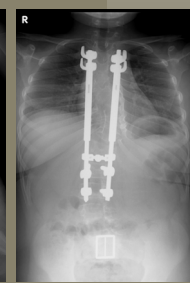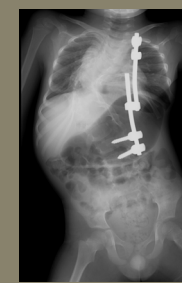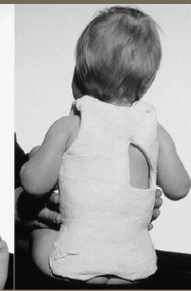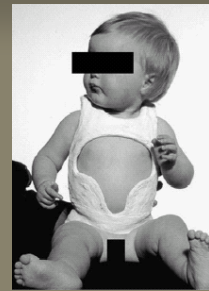   - **Single/dual rod (manual distraction)**
    - VEPTR
    - 'Hybrid' Spine / Rib
  - Growth Guided
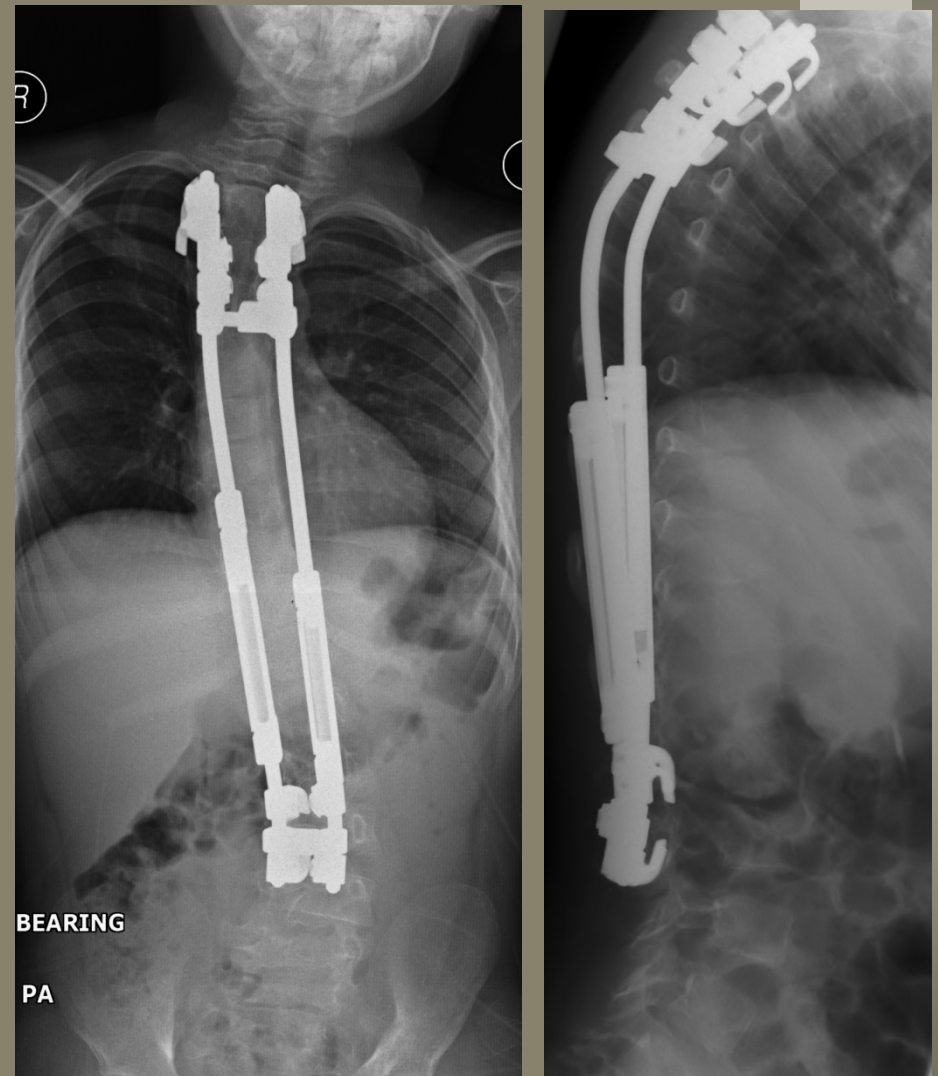   - Luque trolley
    - **Shilla / 'Shilla like'**
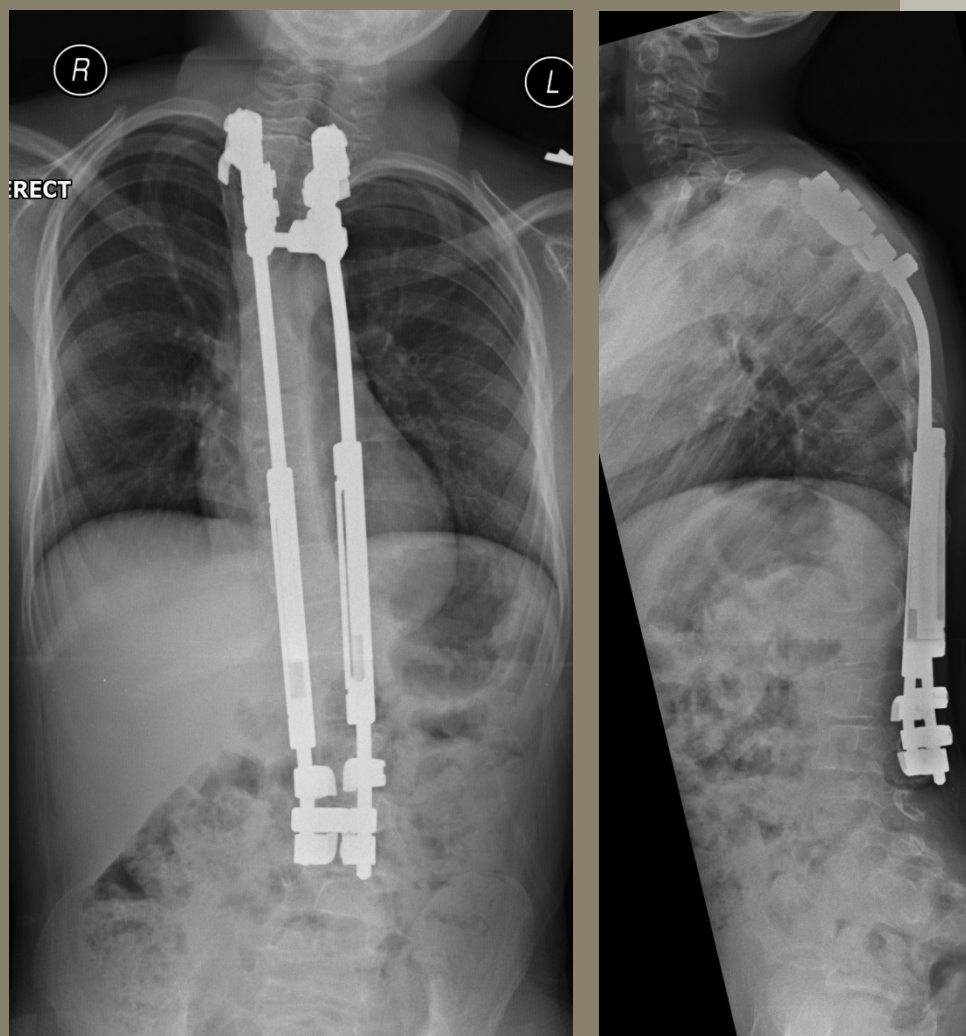 - Anterior Tether based
    - Staples (disc/growth plate)
    - Screws - cable/ligament
    - Osteotomy

- ♂ **4yrs old**
- **MRI normal**
- **Mild Arthrogryphosis**
- **Soft tissue leg Rx**
- **Walking difficulties**
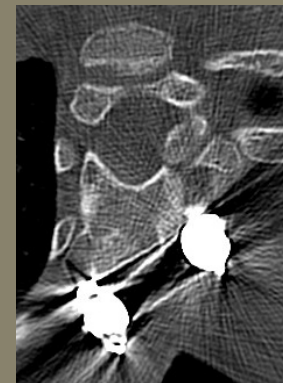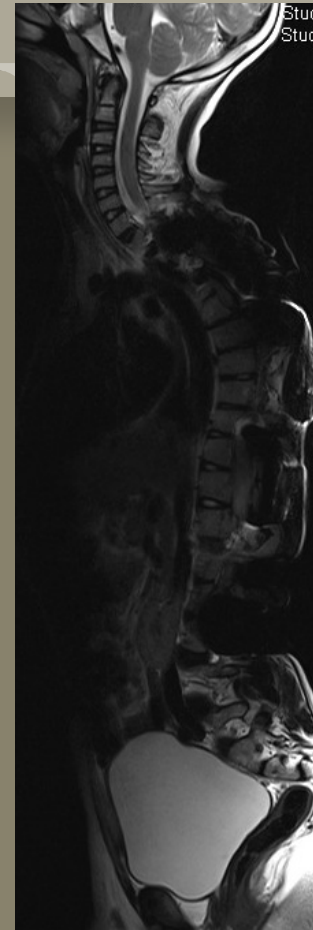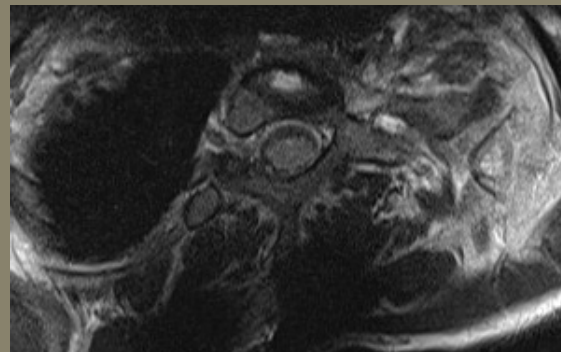- **Serial Casting + Brace**
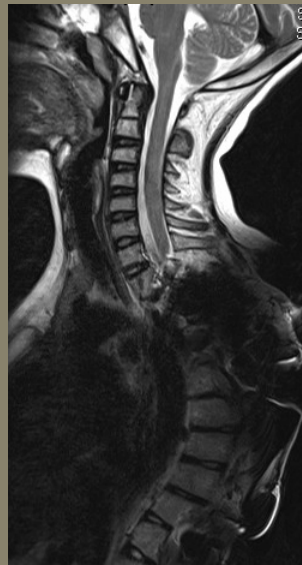- **Paediatric ISOLA dual rod aged <6**

- **Regular lengthenings / connector change / rod revision**
- **8 years uneventful treatment**
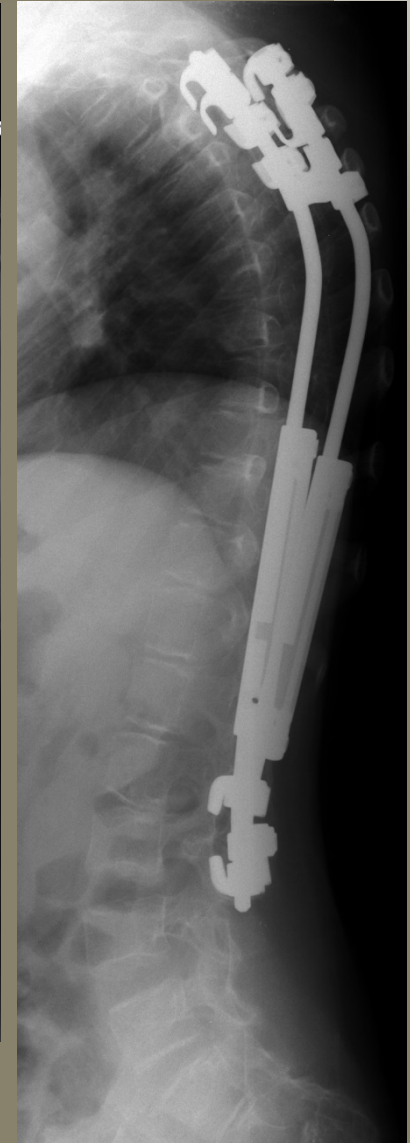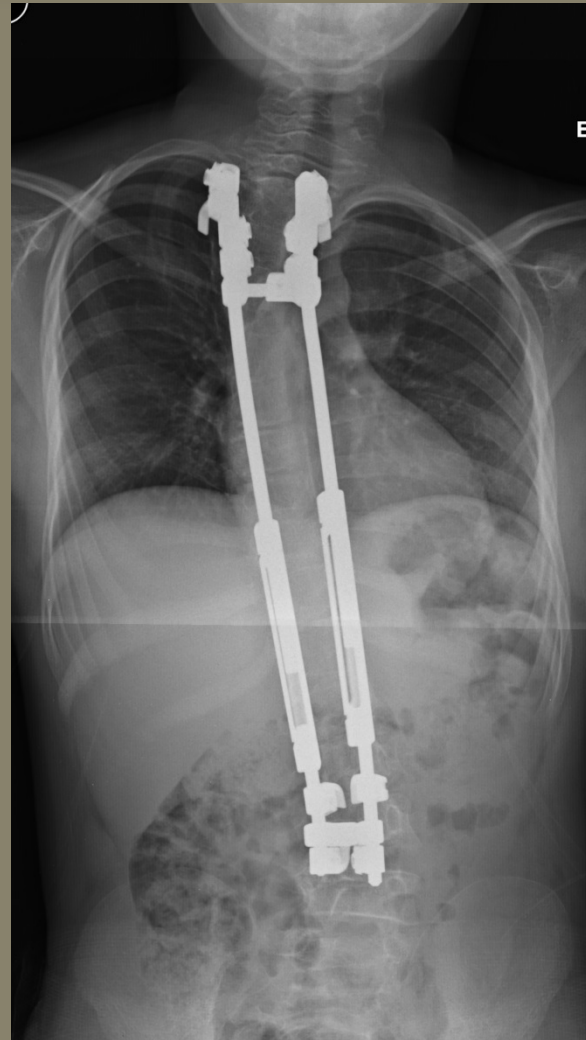
- **Routine lengthening**
- **Normotensive anaesthetic**
- **Passed 'wakeup' test**
- **Progressive paralysis of legs < 30 minutes post - distraction**
- **Immediate return to theatre – distraction released**
- **No recovery**
- **Full 'neuro' support**
- **CT / MRI**

- T3/T4 Paraplegia
- No recovery
- Further MRI's (including head)
- No evidence cord signal change
- Neurophysiology Studies – no additional information

True and Fair Record?

- Nothing 'unusual' on this distraction

- Very rapid return to theatre - when identified ? minor delay

- Full neurological support

- No implant related or radiological identified problems on scans

- Would removal of all implants have helped ?

What have we Learnt / Changed ?

- All staff aware of need for detailed post - operative neurological observations in lengthening patients
- Any implant revisions done with neurophysiology monitoring (? Helpful in this case ?)