

A Solution to VEPTR Iliac S-Rod Migration

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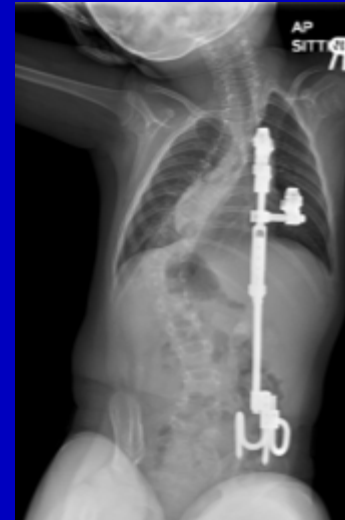
Introduction

- Stable fixation to the pelvis is an essential part of rib to pelvis VEPTR constructs
- A single S-rod is commonly used for pelvic fixation
- Migration of the S-rod into the body of the ilium has been a common problem
- A modification using dual S-rods joined by a domino has been used to provide a more stable anchor point



Methods

- Charts and radiographs were reviewed on all patients who had placement of VEPTR's with rib to pelvis constructs
- A construct of two short S-rods is used over the posterior iliac crest. One is directed medial while the other is directed lateral with a domino connector locking them together. A second domino above is attached to the longer of the S-rods for vertical rod attachment



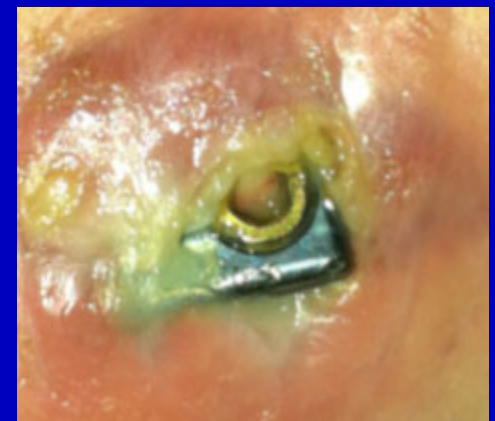
Results

- Seven patients
- Diagnoses:
 - Syndromic 5
 - Neuromuscular 2
- Average age at placement
6+8 years of age
 - (range 1+11 years to 13+11 years)
- Average length of follow-up
1+2 years
 - (range 6 weeks to 2+10 years)
- Average number of lengthenings
per patient 1.5
 - (range 0-6)



Complications

- One broken rod at the pelvis which was revised
- One skin breakdown
 - 2 year old arthrogryposis



Conclusion

- The use of dual S-rods at the posterior iliac crest offers a stable fixation without migration or pull-out at 14 month follow-up