Genu Valgum Secondary to Focal Fibrocartilaginous Dysplasia of the Distal Femur: Case Report

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BACKGROUND

- FFCD
  - Rare fibrous dysplasia with different amounts of Fibrocartilage
  - Classically described in medial proximal tibia
  - Etiology is unknown
  - The mechanism of the deformity in FFCD is persistence of fibrocartilaginous anlage at the Pes
  - Presents approximately in 12–24-month children

TUMOR: ORIGINAL ARTICLE

Focal Fibrocartilaginous Dysplasia ("Fibrous Periosteal Inclusion")

An Additional Series of Eleven Cases and Literature Review

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BACKGROUND

- MANAGEMENT
  - OBSERVATION
  - TETHER RELEASE AND CURETTAGE
  - OSTEOTOMY

Review > J Pediatr Orthop B. 2019 Mar;28(2):127-131. doi: 10.1097/BPB.0000000000000570.

Spontaneous resolution of focal fibrocartilaginous dysplasia of femur on long-term follow-up: case report and review of literature

Ashok Johari [1], Rashid Anjum

Spontaneous resolution of angular deformity of the distal femur in focal fibrocartilaginous dysplasia: a case report

Ahmed M Thabet [1], Mohan V Belthur, John E Herzenberg

Case Reports > J Pediatr Orthop B. 2020 Sep;29(5):466-471.
doi: 10.1097/BPB.0000000000000742.

Focal fibrocartilaginous dysplasia of the distal femur

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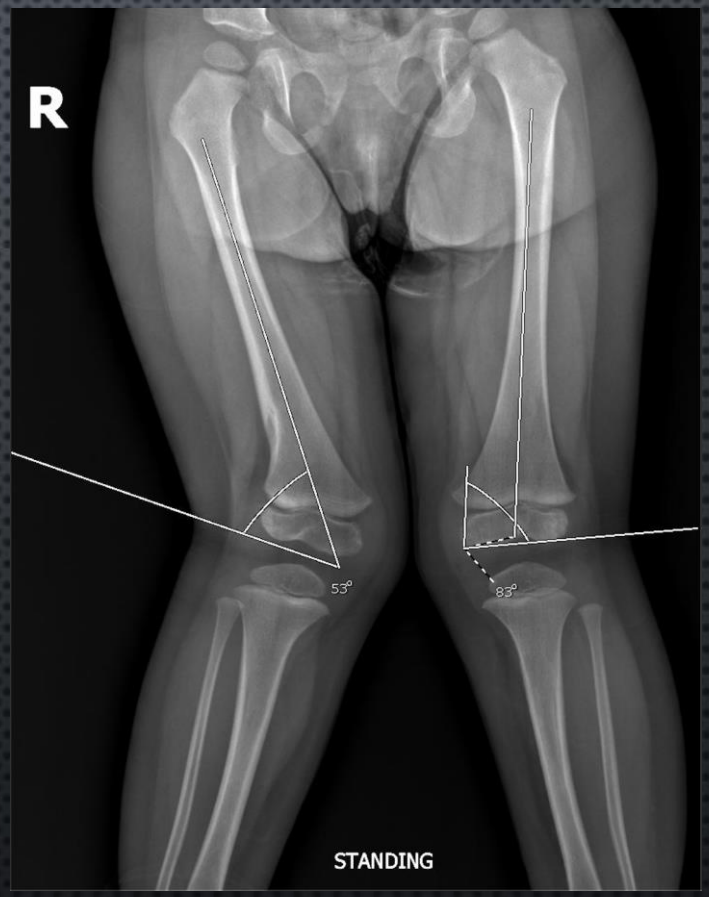
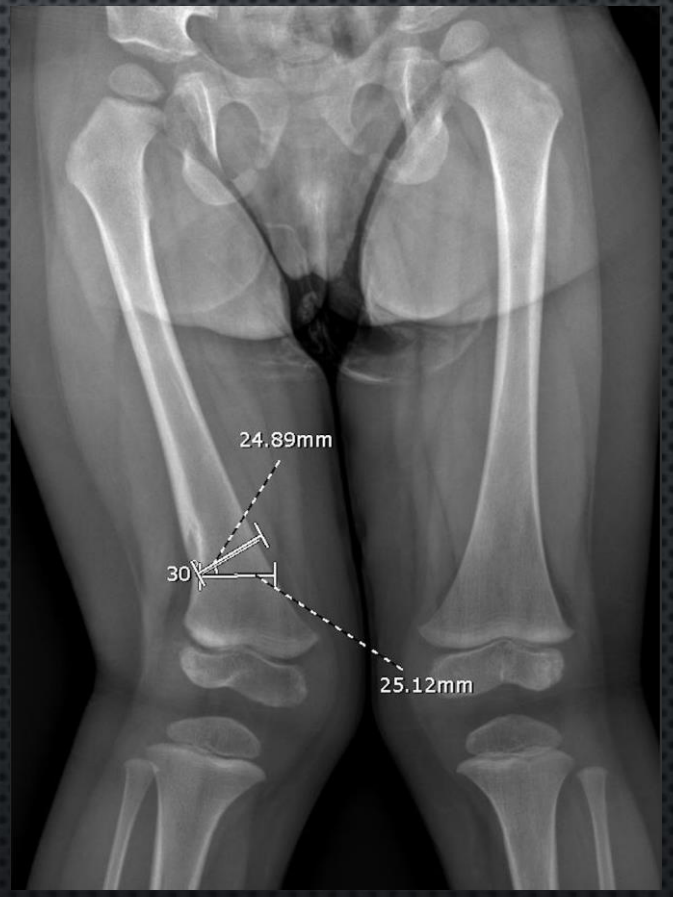
Affiliations + expand

PMID: 32453122 DOI: 10.1097/BPB.0000000000000742

CASE PRESENTATION

- 29 MO/OLD FEMALE WITH PROGRESSIVE VALGUS
- FIRST NOTICED AT 1 YEAR, WORSENING TO THE POINT OF HINDERING AMBULATION
- INITIAL PREOPERATIVE IMAGING REVEALED APPROXIMATELY 30 DEGREES OF VALGUS DEFORMITY AT THE DISTAL FEMUR AND A MECHANICAL LATERAL DISTAL FEMORAL ANGLE (aLDFA) OF 53°.

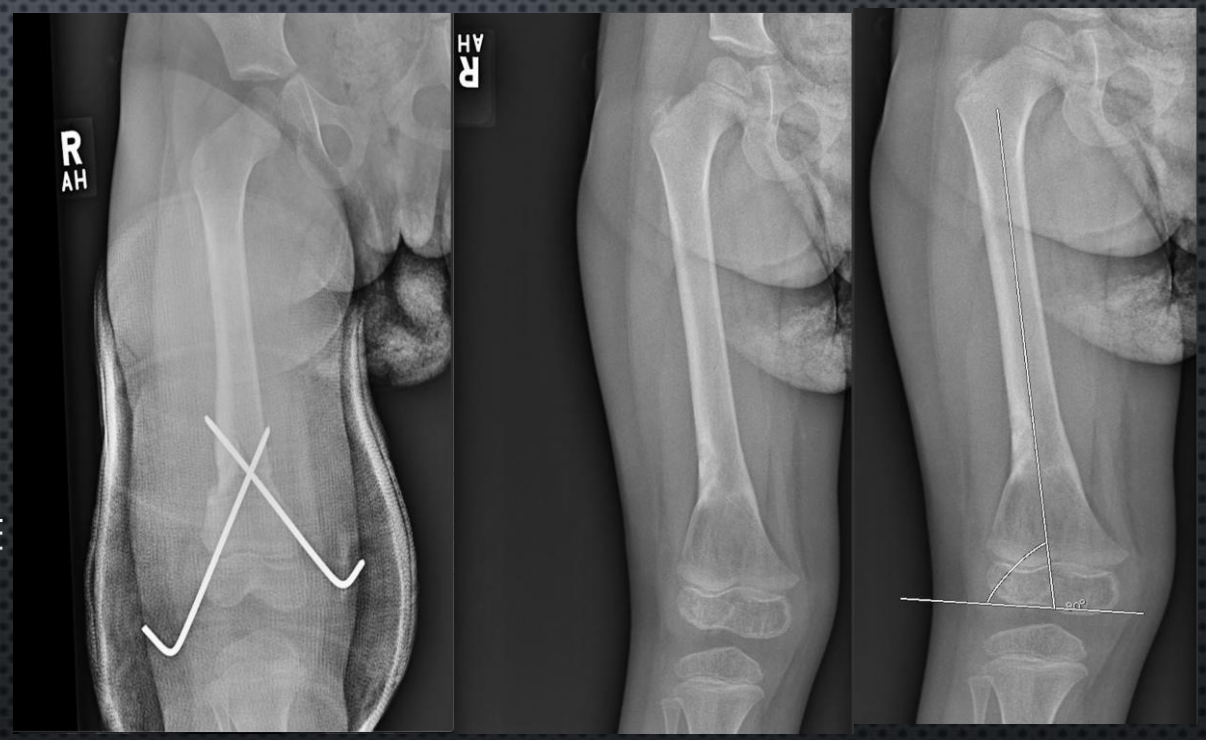




CLOSING WEDGE CORRECTION

Case Presentation

- Pathology report was consistent with fibrocartilaginous dysplasia
- At most recent follow up:
  - patient exhibited normal gait
  - no obvious deformity to the lower right extremity.
- Post-operative imaging at this time revealed symmetrical LDFA, no angular deformity, and no physeal disturbance with appropriate growth.



Discussion

- Management reasoning
  - Potential treatment options include resection alone, resection plus 8-plate guided growth, and **resection and osteotomy**
  - The rationale for doing acute correction osteotomy was the degree of angulation would potentially take too long to catch up without intervention. Additionally, an 8-plate left over about 2 years may cause permanent epiphysiodesis. Application of the 8-plate in this case would likely have taken 36 months in order to achieve angular correction
  - Approach: Medial vs lateral
    - Despite requiring osteotomy of a medial wedge of bone, the decision was made to approach the site laterally in order to reduce risk of damage to muscles/nerves.

REFERENCES

1. Bell S, Campbell P, Cole W, Menelaus M. Tibia vara caused by focal fibrocartilaginous dysplasia. Three case reports. *The Journal of Bone and Joint Surgery British volume*. 1985;67(5):780-784.

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3. Bakircioğlu S, Yilmaz ET, KÖsemehmetoğlu K, Yilmaz G. Excision of fibrous band and application of tension band plating in focal fibrocartilaginous dysplasia: A case report and literature review. 2020.

4. Johari A, Anjum R. Spontaneous resolution of focal fibrocartilaginous dysplasia of femur on long-term follow-up: case report and review of literature. *Journal of Pediatric Orthopaedics B*. 2019;28(2):127-131.