Congenital Unilateral Posteromedial Bowing of the Tibia and Fibula

Sung Soo Kim, M.D.

Department of Orthopaedic Surgery,
College of Medicine, Dong-A University, Busan, Korea
Introduction

- Congenital postero-medial bowing of the tibia and fibula (CPMBT) has been described as a benign, self-resolving condition, where bowing of the tibia and fibula is seen at birth with a calcaneovalgus deformity of the foot.

- The two problems that have been recognized in children with CPMBT are varying degrees of shortening of the affected limb and the occasional instance of persistent residual deformity.
Introduction

- The medial and posterior bowing does not resolve completely in all cases and the residual bowing may require a corrective osteotomy.

- A significant limb length discrepancy develops in many cases, which will require surgical treatment in the form of an epiphysiodesis or limb lengthening.
CASE report

- 1st female baby
- C-sec d/t breech
- 40 weeks
- 3.5kg
- Family Hx : N-S
- Age at the operation : 4.6 years
CASE

C.C: Lt. lower leg deformity & LLD & calcaneovalgus (1 month)

Dx: Congenital postero-medial bowing of the tibia

1 month
CASE

4 months
CASE

7 months
CASE

12 months (start walking)
CASE

16 months

LLD : 2.7cm
CASE

4.5 years

LLD : 3.5cm
CASE - Postop

Corrective osteotomy and EF application c T-F transfixation

Postop 5 days – lengthening start
CASE

Lengthening – 1 week (1mm/day)
CASE

Lengthening – 2 weeks
CASE

Lengthening – 3 weeks
CASE

Lengthening – 4 weeks
CASE

Stop lengthening – 5 weeks
3.5cm lengthening
CASE

POD 2 M
CASE

POD 3.7 M : Start destiffening
CASE

POD 4.5 M : removal all
Discussion

- Three reasons for surgical intervention in CPMBT; the first is to correct residual bowing of the tibia, the second is to deal with limb length inequality, and the third is to correct ankle valgus

- Journal of Pediatric Orthopaedics B 2009, 18:120–128 -

- No treatment of the angular deformity should be considered until an adequate period of observation confirms that correction is in fact not occurring. Severe residual bowing after the age of 3 to 4 years is an indication for corrective osteotomy

- Tachdjian’s Pediatric orthopedics, 4th ed. -
A rational approach would be to operate only if there is a significant limb length discrepancy of more than 3 cm and no decrease in the angulation for a period of 1–2 years on serial X-rays. We believe that 3 years is not the optimal age to operate on these children. It is better to wait till the child is older (closer to puberty)

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Thank you for your attention.