



*Original article*

# Congenital Posteromedial Bowing of the Tibia: A Single Center Experience

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## SUMMARY

Congenital posteromedial bowing of the tibia (CPMBT) is a rare congenital anomaly of the lower limbs. The aim of the present study was to analyze our experience in the treatment of CPMBT.

A retrospective study of patients treated for CPMBT in the period January 2000 – June 2016 was performed. In the observed period, six patients were treated (five girls and one boy), with predominance of the right tibia involvement (5:1).

The initial treatment included a series of corrective casts (4-9) applied in all patients, followed by removable splints and physiotherapy. Four children with residual angulation of tibia after walking age were prescribed ankle-foot orthosis (AFO) as a prevention of pathological fractures. Both posterior and medial angulation correct over time. Mean initial shortening was 11 mm. At the last follow-up visit, mean shortening was 23.33mm. Three patients had lower limb shortening of more than 2 cm. In two of them, with shortening of 27 mm and 35 mm, Ilizarov lengthening was performed. In one girl, we performed lengthening over titanium elastic nails. In the other girl, after lengthening, circular frame was exchanged with a locking plate to reduce fixator wearing time. There were no major complications of treatment. Patients were followed up for 2-12 years (mean 6.83 years). None of them reached skeletal maturity yet.

Primary manifestation of CPMBT – angulation of tibia and fibula as well as calcaneovalgus deformity usually correct spontaneously or with conservative measures. However, limb length inequality, as a consequence of CPMBT, progresses with growth and may require surgical correction in some children. Therefore, all children with CPMBT should be followed up until skeletal maturity.

*Key words:* posteromedial bow, congenital anomaly, limb lengthening, Ilizarov, deformity correction

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