## Mono-lateral Frames For Femoral Long segment Lengthening.

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INTRODUCTION: Limb lengthening should be considered for patients with limb length discrepancy of 4 cm. or more. Limb lengthening has been reported to be associated with a high complication rate.

METHODS:

A modified Wagner apparatus was used as a mono-plane mono-axial lengthening device for 17 patients and a modified Orthofix frame for another 11 patients. The Ilizarov method of metaphyseal corticotomy-callotasis was applied to all cases except in 8 cases of chronic poliomyelitis where a metaphyseal anterior closing wedge (recurvatum) corrective osteotomy was done to treat hand to knee gait , and another one case of old malunion with shortening & angulation where a diaphyseal corrective osteotomy was done. The bi-focal technique was done for 4 cases (14.2 %).

RESULTS: The femora were lengthened to an average of 8. 3 cm.( = 23 % of original femoral bone length ), range of lengthening was : 4.5 - 17 cm. ( = 9 - 5 6. 6 % ). The average healing index was 32 days per centimeter (with a range of 26 to 43 days per centimeter.)

DISCUSSION AND CONCLUSION:

Mono-plane lengthening devices can provide a high success rate in femoral bone lengthening of various etiology with a well accepted complication rate.