

Varus distal femoral osteotomy in young adults with valgus knee

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[View references \(33\)](#)

Abstract

Background. Musculoskeletal disorders specially knee osteoarthritis are the most common causes of morbidity in old patients. Disturbance of the mechanical axis of the lower extremity is one of the most important causes in progression of knee osteoarthritis. The purpose of the present study was to analyze the surgical results of distal femoral varus osteotomy in patients with genu valgum. **Methods.** In this study, after recording history and physical examination, appropriate radiographs were taken. We did varus distal femoral osteotomy by standard medial subvastus approach and 90°-angle blade plate fixation then followed the patients clinically and radiographically. **Results.** This study was done on 22 knees (11 patients) age 22,3 years (range, 17 to 31 years). The mean duration of following up was 16,3 months (range, 8 to 20 months). Based on paired T test, there were statistically significant difference between pre- and postoperative tibiofemoral and congruence angles ($p < 0,001$, $t = 21,3$ and $p < 0,001$, $t = 10,1$ respectively). Pearson correlation between the amount of tibiofemoral and congruence angle correction was also statistically significant ($p = 0,02$ and $r = 0,86$). **Conclusion.** Distal femoral varus osteotomy with blade plate fixation can be a reliable procedure for the treatment of valgus knee deformity. In this procedure, with more tibiofemoral angle correction, more congruence angle correction can be achieved. Therefore, along with genu valgum correction, the patella should be stabilized simultaneously.

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