

## عنوان البحث:

### **Percutaneous High Tibial Closed □ Wedge Corticotomy and Casting for Treating Genu Varum in Adolescents**

#### الملخص الانجليزي :

Diverse surgical modalities have been designated for the treatment of genu varum deformity. However, other studies have not constantly confirmed which technique to be better than the other. The use of hardware, bone graft or bone substitute have their own risks. In this study, simple technique of percutaneous high tibial closed-wedge corticotomy and casting for treating genu varum in average body-built adolescents without hardware fixation was reported.

An overall 22 knees of 16 average-weight adolescents having genu varum with a mean age of 14.8 years (range, 12–18 years) underwent percutaneous high tibial closed-wedge corticotomy and casting. The study was conducted between May 2017 and January 2020. The typical follow-up duration was ten months (range, 8–22 months). Clinical and radiological evaluation for all patients was implemented.

Mean postoperative Rasmussen clinical score was 27 (range, 24–30), with 16 excellent and six good results. The tibiofemoral angle improved from a mean of 18.2 degree varus (range, 14–25 degree varus) preoperatively to 1.3 degree valgus (range, 0–8 degree valgus) postoperatively, indicating a significant improvement ( $P<0.05$ ). Bone union was achieved at a mean of ten weeks (range, 8–14 weeks). None of the patients sustained nonunion, delayed union, infection, or knee stiffness.

Percutaneous high tibial closed-wedge corticotomy and casting is a minimally invasive procedure for treating genu varum in adolescents. Good results are able to be attained with proper patient selection and meticulous surgical technique.