

البحث الثالث: بحث مشترك منشور

Wagner multiple K-wire osteosynthesis for the management of coxa vara :عنوان البحث **in the young child**

الملخص الانجليزي :

Valgus proximal femoral osteotomy has been practiced by many authors and is the gold standard surgical treatment of developmental coxa vara, with a variety of techniques used to achieve stabilization. In this study, we had performed intertrochanteric valgus osteotomy fixed with multiple K-wire osteosynthesis utilizing the surgical technique described by Wagner in 1978 for the management of DCV.

Ten children (11 affected hips) underwent the above procedure at an average age of 6.4 years (range, 5.3-10 years). The study was conducted between December 2009 and January 2013. Limping was the main presenting symptom in all patients. The average follow-up was 12 months (range, 9-18 months). Radiologic inclusion criteria were an epiphyseal Hilgenreiner's angle (EHA) of more than 45° and a head-shaft angle (HSA) of less than 110° .

The average improvement in epiphyseal Hilgenreiner's angle was from 78.3° before surgery to 26.9° after surgery, the head-shaft angle improved from 85.2° to 133.3° , which were statistically significant ($P<0.05$). Latest follow-up after surgery showed good healing, satisfactory results with no significant loss of correction in any case. All patients had improvement of their gait and level of agility and could sit cross legged. The range of abduction in extension and flexion improved in all patients. Trendelenburg test was negative in seven hips and fatigue positive in four hips. Complications included a single broken K-wire in one hip, single broken cerclage wire in another hip, limb shortening more than 1.5 cm in one case and bad scars in two cases.

We believe that this technique offers several advantages over currently available methods for surgical correction of DCV with good clinical and radiological outcome and low rate of complications.