

Dunn Procedure With Transphyseal Resection For Slipped Capital Femoral Epiphysis (SCFE) In Adult Patient With Endocrinopathy: A One-Year Review

Chan J; IM Anuar-Ramdhan

Department Of Orthopaedics, Sarawak General Hospital, Sarawak

INTRODUCTION: Slipped capital femoral epiphysis (SCFE) is a condition which classically presents in the age group of 10 to 15 years old but late presentation may occur in unusual hormonal circumstances. In this review, we followed a case of severe slip SCFE in a young adult who has pituitary macroadenoma, which was managed operatively via Dunn procedure with transphyseal resection.

CASE REPORT: A 24-year old gentleman presented with 2 months history of right hip pain following a trivial fall. On examination, he walked with a limping gait, mild tenderness at the right hip with obligatory external rotation of the right lower limb. Pelvic and hip radiographs showed severe slip SCFE (Southwick slip angle: 60deg) (Fig.1). MRI of the hip showed no femoral epiphysis avascular necrosis (AVN). We proceeded with Dunn procedure (Gibson approach) with transphyseal resection for the right hip and prophylactic pinning for the contralateral hip. After one-year, patient has no pain with good motion of the right hip.



Fig. 1: Pre-operative xray



Fig. 2: Post-operative xray 6 months

DISCUSSIONS: The modification in original Dunn procedure with additional transphyseal resection is showing a good outcome without surgical hip dislocation that has been proposed by Swiss group. The advantages of this 'new' modification are maintaining the ligamentum teres as secondary source of blood supply to the femoral epiphysis (primary source of blood supply is medial femoral circumflex artery) and allowing the intramedullary perfusion from the femoral neck to the epiphysis after transphyseal resection.

CONCLUSION: The best treatment for severe slip SCFE remains controversial between pinning in-situ and open reduction. The late incidence of femoro-acetabular impingement (FAI) with arthritis of the acetabular cartilage makes the option of open reduction gradually accepted among the surgeons. We believe the transphyseal resection without surgical hip dislocation could be done and the above case has shown the good outcome of this 'new' modification.

REFERENCES: M. Tannast. The modified Dun procedure for slipped capital femoral epiphysis: a Bernese experience. J Child Orthop 2017 APR, 11(2); 138-146