Safe Surgical Hip Dislocation

Essay

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in Orthopedic Surgery

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قَالُوا سُبْحَانَكَ
لاَ عِلْمَ لَنَا
إِلاَّ مَا عَلَّمْتَنَا
إِنَّكَ أَنتَ
الْعَلِيمُ الْحَكِيمُ
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Ahmed Eid Morsy

الخلع الجراحى الآمن لمفصل الفخذ

رسالة

توطئه للحصول علي درجة الماجستير في جراحة العظام

مقدمة من

الطبيب/ أحمد عيد مرسي خالد

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AVN	: Avascular necrosis
DJD	: Degenerative joint disease
DVT	: Deep venous thrombosis
FAI	: Femoroacetabular-impingement
IGA	: Inferior gluteal artery
LCPD	: Legg-Calvé-Perthes disease
LDF	: Laser Doppler flowmetry
LFCA	: Lateral femoral circumflex artery
MFCA	: Medial femoral circumflex artery
MHE	: Multiple Hereditary Exostoses
MRI	: Magnetic resonance imaging
NSAIDS	: Non-steroidal anti-inflammatory drugs
O.A.	: Osteoarthritis
PVNS	: Pigmented villonodular synovitis
SCFE	: Slipped capital femoral epiphysis

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INTRODUCTION

Despite the success of hip replacements and great advances in technology that have improved the durability of these implants, joint replacement is not the ideal option in the young as they have limitations and may require another revision operation. This need drove many great minds in the field of orthopedics to study these unique patients and to invent new surgical procedures aiming to preserve the hip that would alleviate these patients pain and hopefully prevent further hip joint damage. One of these new procedures is the safe surgical hip dislocation technique.[1]

Surgical hip dislocation gives new insight into the pathogenesis of various traumatic and non-traumatic hip disorders and the possibility of preserving the hip. Surgical dislocation had been carried out before through the anterior, lateral and posterior approaches, but visualization of the entire femoral head and acetabular cartilage was not optimal, besides, they had considerably high complication rates. [2, 3]

With improved understanding of the vascularity of the proximal femur and the hip joint, and the ability to safely dislocate the hip joint after extensive work by Ganz et al[3], a new era described as *"hip preservation"* has emerged, based on improving the forces within the hip by restoring normal hip biomechanics. [1, 3, 4]

Ganz safe surgical dislocation of hip is a very useful procedure for the exposure of intra articular pathologies of the hip. It does not compromise the blood supply of the head of the femur. Hence there is no risk of avascular necrosis. Using this technique, hip preserving surgeries can be easily performed with good exposure of intra articular and peri articular tissues.[5]

There is little morbidity associated with the technique and it allows the treatment of a variety of conditions, which may not respond well to other methods including arthroscopy.[3]

It combines aspects of approaches which have been reported previously and consists of an anterior dislocation through a posterior approach with a 'trochanteric flip' osteotomy. The external rotator muscles are not divided and the medial femoral circumflex artery is protected by the intact obturator externus. [3]

Safe surgical hip dislocation has been applied for correction of intra articular deformity in slipped capital femoral epiphysis, femoral head impingement in deformed head due to Legg - Calve - Perthes disease, extensive femoroacetabular-impingement (FAI), acetabular fracture , femoral head fractures, refixation of labral tears under vision if there is extensive lesion, as an approach for surface replacement arthroplasty, intra articular pathologies like synovial chondromatosis, pigmented villonodular synovitis and in joint debridement.[5]

Surgical hip dislocation is a safe procedure with a low complication rate. The commonest complications reported were heterotopic ossification, trochanteric non-union and sciatic nerve injury. [6]

AIM OF THE WORK

A review of literature to evaluate the safety and efficacy of surgical hip dislocation approach in the surgical management of various pathologies of the hip joint.