



Original Article

Surgical treatment of femoroacetabular impingement using controlled hip dislocation after occurrence of slipped capital femoral epiphysis[☆]



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ABSTRACT

Objective: To present our experience and preliminary results from using controlled hip dislocation to treat cam-like femoroacetabular impingement, in teenagers and young adults with sequelae of slipped capital femoral epiphysis.

Methods: This was a retrospective analysis on 15 patients who were treated in a tertiary-level hospital between 2011 and 2013. The following data were collected for analysis from these patients' files: demographic data, surgical procedure reports, joint mobility evaluations, patients' perceptions regarding clinical improvement and whether they would choose to undergo the operation again, previous hip surgery and complications. The exclusion criteria were: follow-up shorter than six months, the presence of any other hip disease, osteotomy of the proximal femur performed at the same time as the osteochondroplasty and incomplete medical files with regard to the information needed for the present study.

Results: Fifteen patients (17 hips) who underwent osteochondroplasty to treat femoroacetabular impingement were evaluated. Nine of them were women, the mean age was 18 years old and the minimum follow-up was two years. Two patients underwent osteochondroplasty bilaterally; eight patients were operated on the left side and five on the right side. In 14 cases, the greater trochanter was lowered (relative lengthening of the neck) in association with the osteochondroplasty. For 13 patients, their previous surgery consisted of fixation of an occurrence of slipped capital femoral epiphysis; for six patients (eight hips), flexor osteotomy was performed previously; and for one patient, hip arthroscopy was performed previously. Fourteen patients presented improvement of mobility and hip pain relief, in comparison with before the operation, and they said that they would undergo the operation again. Two complications were observed: one of loosening of the fixation of the greater trochanter and one of heterotopic ossification.

[☆] Study conducted at Universidade Federal do Paraná, Hospital do Trabalhador, Curitiba, PR, Brazil.

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Conclusion: The preliminary results from this study suggest that osteochondroplasty through controlled surgical hip dislocation is a good option for treating femoroacetabular impingement. Through this method, the patients reported achieving improvement of joint mobility and hip pain, with few complications.

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Tratamento cirúrgico do impacto femoroacetabular pós- epifisiólise pelo método da luxação controlada do quadril

R E S U M O

Palavras-chave:

Impacto femoroacetabular
Osteocondroplastia
Luxação do quadril
Articulação do quadril

Objetivo: Relatar nossa experiência e os resultados preliminares com a luxação cirúrgica controlada do quadril no tratamento do impacto femoroacetabular (IFA) tipo CAM em adolescentes e adultos jovens com seqüela de epifisiólise femoral proximal.

Métodos: Análise retrospectiva de 15 pacientes tratados em hospital terciário, onde foram selecionados prontuários de pacientes que fizeram o procedimento de 2011 até 2013. Os dados coletados para análise foram: dados demográficos, descrição do procedimento cirúrgico, avaliação da mobilidade articular, impressão subjetiva do paciente no que se refere à melhoria clínica e se optariam por fazer a cirurgia novamente, cirurgias anteriores no quadril e complicações. Foram excluídos pacientes com seguimento menor do que seis meses, portadores de outras doenças do quadril, submetidos a osteotomias do fêmur proximal no mesmo momento da osteocondroplastia e cujo prontuário estivesse incompleto quanto às informações necessárias para o presente estudo.

Resultados: Foram avaliados 15 pacientes e 17 quadris submetidos a osteocondroplastia para o tratamento do IFA, nove pacientes eram do sexo feminino, média de 18 anos e seguimento mínimo de dois anos. Quanto à lateralidade, oito pacientes foram operados do lado esquerdo e cinco do lado direito, além de dois pacientes nos quais a osteocondroplastia foi feita de forma bilateral. Em 14 casos, abaixamento do trocânter maior (alongamento relativo do colo) foi associado à osteocondroplastia. Treze pacientes tinham como cirurgia prévia a fixação da epifisiólise, em seis (oito quadris) foi feita osteotomia flexora prévia e um fez uma artroscopia do quadril. Em 14 pacientes houve melhoria da mobilidade e da dor no quadril, quando comparada com o pré-operatório. Esses 14 pacientes relataram que fariam a cirurgia novamente. Foram observadas duas complicações, uma soltura da fixação do trocânter maior e uma ossificação heterotópica.

Conclusões: Os resultados preliminares deste estudo sugerem que a osteocondroplastia pela técnica da luxação cirúrgica controlada do quadril é uma boa opção no tratamento do impacto femoroacetabular. Por esse método os pacientes relataram melhoria da mobilidade articular e dor no quadril e tiveram poucas complicações.

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Introduction

Slipped Capital Femoral Epiphysis (SCFE) (epiphysiolysis) is a condition that affects pre-adolescents and adolescents without a definite cause. In moderate and severe grades, this pathology causes changes in the epiphysis and the femoral neck shape, and can predispose femoroacetabular impingement (FAI). This impingement predisposes biomechanical changes, pain, and deterioration of the acetabular articular cartilage. In turn, these factors may increase the risk of early hip osteoarthritis.

Recently, controlled surgical dislocation of the hip was shown to be an appropriate method for treating FAI, providing

improvements in hip pain and mobility, as well as preventing arthrosis.^{1,2} This technique, initially described by Ganz et al.,³ is based on the anatomical knowledge of the preservation of the medial femoral circumflex artery pathway,⁴ allowing for an excellent visualization of the femoral epiphysis and acetabulum, and thus minimizing the risk of avascular necrosis. It also allows, when necessary, correction of the extra-articular impingement, through femur osteotomies and distal transfer of the greater trochanter.⁵

This study aimed to report the preliminary results of controlled surgical hip dislocation in the treatment of CAM-type FAI secondary to SCFE in adolescents and young adults.

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