

CLINICAL AND RADIOLOGICAL OUTCOME FOR NEGLECTED DEVELOPMENT DYSPLASIA OF THE HIP

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ABSTRACT

Purpose: The objectives of this current study is to evaluate radiological and clinical outcome for neglected development dysplasia of the hip. This study was conducted in older children aged more than six years old.

Materials and Methods: This is a retrospective analysis of 22 hips among 20 patients. All the patients had undergone an operation at a Hospital Pulau Pinang in Malaysia from 2013 to 2018. Severin's scoring and MacKay's scoring system was used for postoperative evaluation. Kalamchi & Mac Ewen grading was used if patient complicated with avascular necrosis of femoral head.

Results: This study revealed that the average age during surgery was 10.38±3.91 years. The Tönnis classification, show that there are 1(5%), 13(65.0%), and 6 (30.0%) hips in Grades II, III and IV. In this study, the surgical technique used was innominate osteotomy with pemberton osteotomy or shelf procedure (18 and 2 hips). Postoperatively, there were (30.0%), 13(65.0%), and 1 (30.0%) hips in Severin grade II, III and IV, respectively. In accordance to the McKay criteria of clinical evaluation, there were 6 hips (30.0%) in excellent condition whereas 14 (70.0%) is categorized as in good condition. The comparison of Pre-operative acetabular index and Postoperative acetabular index showed that patients below 8 years old is significant improving one patient's postoperatively complicated with stable, painful hip with evidence of avascular necrosis of the femoral head.

Conclusion: With the results obtained in this present study, it was recommend for the single stage procedure of open reduction. This study also suggesting for femoral shortening and pelvic osteotomy for treatment of DDH in older children who is having a good to excellent radiological and functional outcomes.

Keywords: Developmental dysplasia of hip; neglected; Pemberton osteotomy; Acetabular Index