THE CHALLENGES OF TOTAL HIP ARTHROPLASTY IN ADULT DYSPLASTIC HIP

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Introduction: Developmental dysplastic hip (DDH) is recognized as the common cause of secondary hip osteoarthritis. Due to the altered anatomy of dysplastic hip, total hip arthroplasty (THA) in these patients are a technically demanding operation. Different technique of THA and reconstruction of acetabulum have been reported in the literatures.

Discussion: 43-year-old lady presented with left hip pain which progressively worse for the past 3 years. Initially, patient started to experience pain over her left hip since aged of 18-year-old. There were no history of injury to left hip. She was unable to perform her daily activities and her quality of life was significantly affected. Upon initial presentation, there was limb length discrepancy of 2.5cm with positive Trendelenburg Test. Plain radiograph showed dysplastic left hip with false acetabulum, osteoarthritis changes over the hip joint, coxa magna with superior migration of left lesser trochanter. Left total hip arthroplasty was performed and it was uneventful and patient was discharged well. Patient was remained asymptomatic for 6 years. During subsequent clinic follow up, patient complaint of pain over the left anterior thigh and plain radiograph showed progressively loosening of implant. Patient underwent revision of left total hip arthroplasty 7 years after the index surgery. Intraoperatively noted the medial wall of the acetabulum was very thinned and the anterior column was weak. Acetabulum was reconstructed, impacted with bone graft, followed by cage insertion with application of superior wall augmentation. Surgery was uneventful and patient was satisfied with the outcome.

Conclusion: The challenges of THA in developmental dysplasia of hip is due to variable complexity of pathomorphologic changes of the acetabulum and proximal femur, as well as the diverse and often younger age of these patients. The main aim of surgical treatment is to achieve long-term stability of the endoprosthesis by restoration of anatomical and biomechanical relationships.