Bahrain Medical Bulletin, Vol. 26, No. 4, December 2004

Complications and Failures of Hip Replacement in Sickle Cell Disease

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Objective: Progressive osteonecrosis of the femoral head is a common musculo-skeletal problem in sickle cell disease. In advanced hip changes, replacement arthroplasty may be the more acceptable option. Total hip arthroplasty in osteoarthritic patients is an operation with good success rate. But in sickle cell disease, the operation carries high incidences of complications and failures. In some reports the failure rate may exceed 50%, in less than 10 years follow-up. The aim of this paper is to evaluate and report on the complications and failures in 41 hips replaced in sickle cell disease patients.

Setting: Orthopaedic Department at Salmaniya Medical Complex.

Design: Prospective Study.

Methods: Forty-one replaced hips in 32 patients operated upon between 1984 to 1997 were followed-up. The mean follow-up was 9.7 (4.5–17) years. All complications and failures were recorded.

Results: Forty-three early and intermediate complications were recoded: 6 excessive bleeding, 7 perforation of the acetabulum, 5 fracture or perforation of the femoral shaft, 6 sickle cell crisis, 5 wound haematoma, 5 clinical deep venous thrombosis, 2 dislocation and 7 heterotopic ossification. One hip failed due to deep infection. Nine hips failed due to aseptic loosening at 6, 7, 9, 9.5, 11, 13, 14, 15 and 17 years.

Conclusion: The incidence of complication in this study is comparable to others. Failure on this study is much lower than any other studies. In Sickle cell disease, the incidence of early and post-operative complications are high. On long term follow up, many replaced hips will fail. Treating doctors and patients should be aware of the difficulties of the operation and the challenge of revision. Every possible improvement methods should be implemented to reduce the incidence of complications and failures.