

CEMENTED CHARNLEY TOTAL HIP ARTHROPLASTY FOR OSTEOARTHRITIS SECONDARY TO DEVELOPMENTAL DYSPLASIA OF THE HIP: 3-37 YEARS FOLLOW UP STUDY

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BACKGROUND

- Cemented Charnley total hip arthroplasty (THA) for osteoarthritis (OA) secondary to developmental dysplasia of the hip (DDH) could present technical challenge due to deficient acetabulum and deformed femur



43 F B/L THR with structural BG 24 years post-op

OBJECTIVE

- To assess the long-term outcomes of cemented Charnley THA for OA secondary to DDH

METHODS

- Retrospective study 142 hips in 125 patients
- Single surgeon 1983-1988
- 40 hips (28.2%) in 37 patients - structural autografts from femoral heads to reconstruct deficient acetabulum
- 102 hips (71.8%) in 88 patients without bone graft.
- Clinical and radiological outcomes were analysed

RESULTS

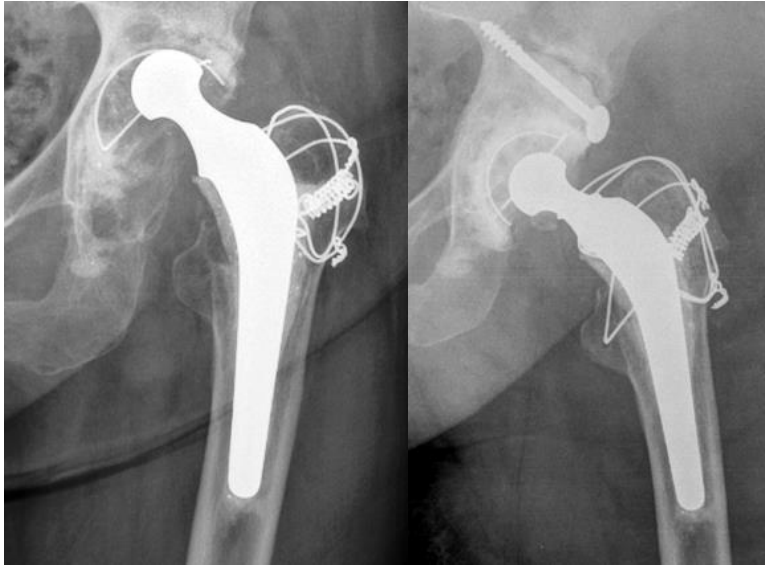
- Mean age 48 years (range 23-78)
- Mean follow up time was 22 years (range 3-37)
- 34 hips needed revision surgery

Non bone graft group		Bone graft group	
Reason for revision	n = 18	Reason for revision	n = 16
Socket loosening only	9	Socket loosening only	12
Stem loosening only	2		
Both components loosening	2		
Stem fracture	1	Stem loosening only	3
Recurrent dislocation	2	Late infection	1
Pseudoarthrosis	2		

- Survival rates in view of radiological fixation were 24.5% and 40% in non-bone graft and bone graft group, respectively

CASE STUDY

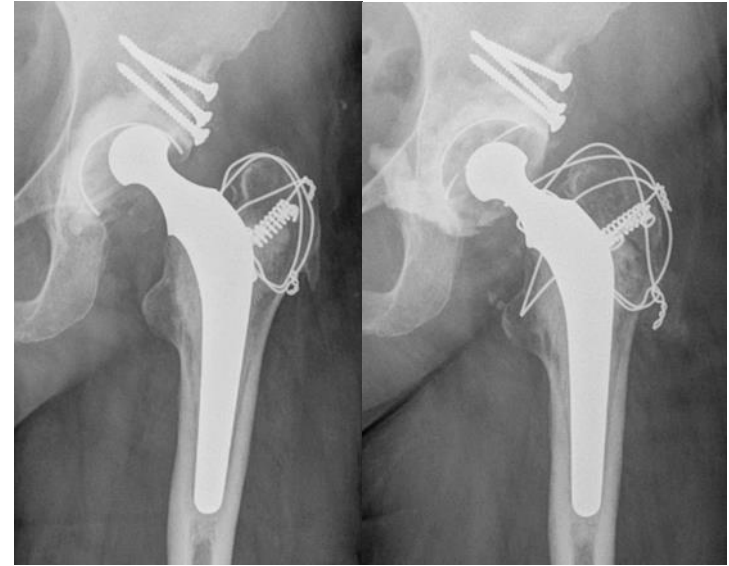
Non BG group



- 50 F Left THR without BG 30 years post op
- Socket was originally fixed in higher position
- Please note further bone loss with socket loosening

- 50 F Left THR
- Socket revised with structural and impaction Allograft in deficient acetabulum

BG group



- 35 F Left THR with structural BG 22 years post op
- Please note socket wear

- 35 F BG socket only revision utilising previous acetabular reconstruction

CONCLUSION

- Longest follow up of largest study group in THA for dysplastic hip (3-37 years)
- Good stem survival
- Challenge on the acetabular side in both the BG and non BG groups
- Acetabular reconstruction with BG could provide better bone stock for future revision surgeries