

Long Term Outcomes Of Primary Total Hip Arthroplasty In Patients With Legg-Calvé-Perthes Disease

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Background and Objective

- Legg-Calvé-Perthes disease (LCPD) is a unique hip pathology occurring in young patients.
- **Objective** of this study was to analyze the long-term results of THA in patients with LCPD which have not been widely reported.

Patients and Methods

- **Inclusion:** 146 patients (169 hips) who underwent primary THA due to sequelae of LCPD under a single hip unit at Wrightington Hospital between 1965 and 2015 with minimum 2 years follow up.
- Details recorded: age at surgery, age at follow up and deaths.
- **Outcomes:** survivorship, functional and radiological outcome and reasons for revision.

Results

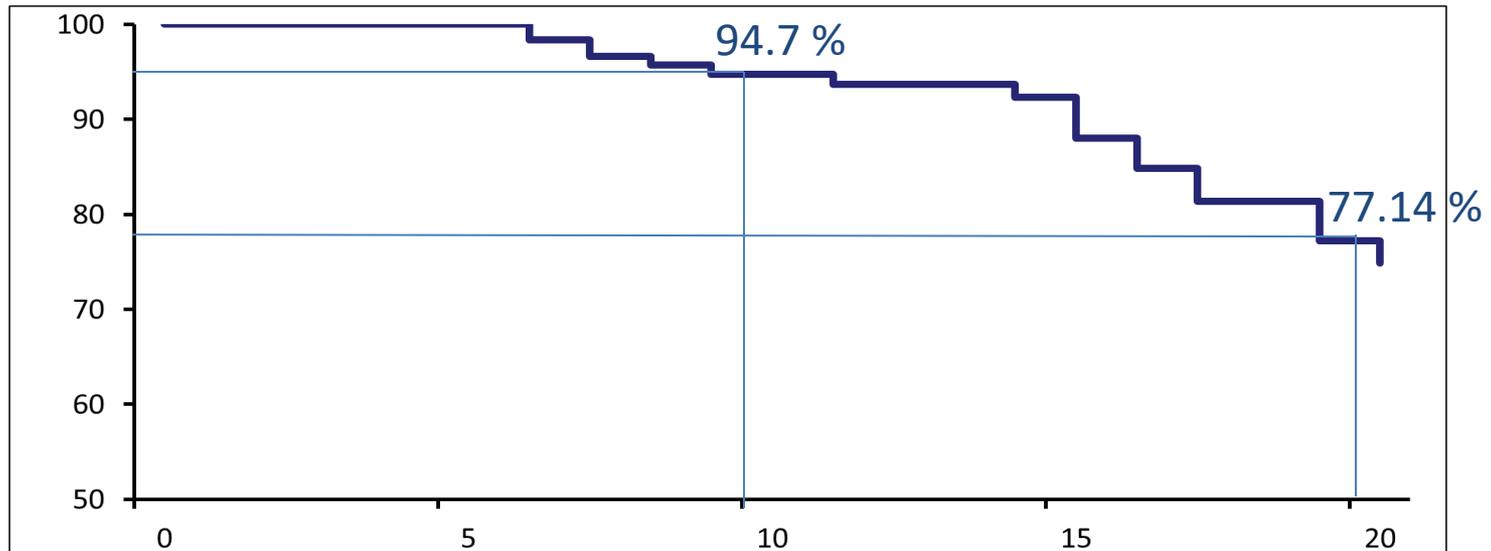
Demographic Data

Total no of pts	146 (169 hips)
Mean Age (years)	50 (17-79)
Mean Follow up	14.1 (2-43.1)
Deaths	14 (17 hips)

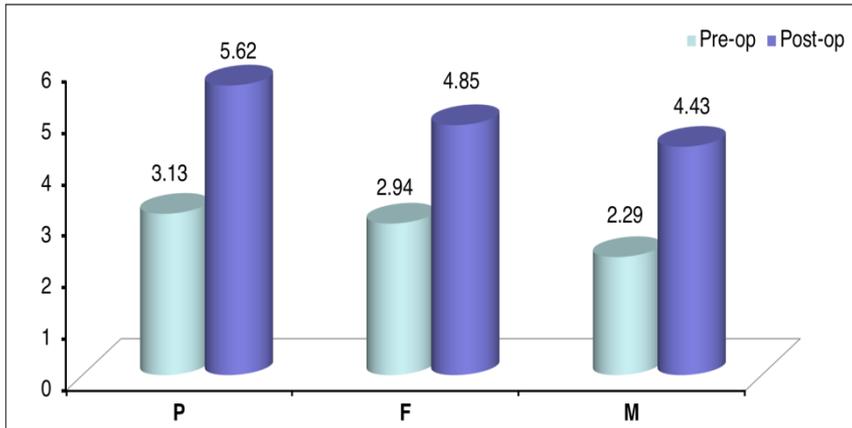
Complications

Dislocation	1
Infection	1
Fracture	1
Nerve palsy	0

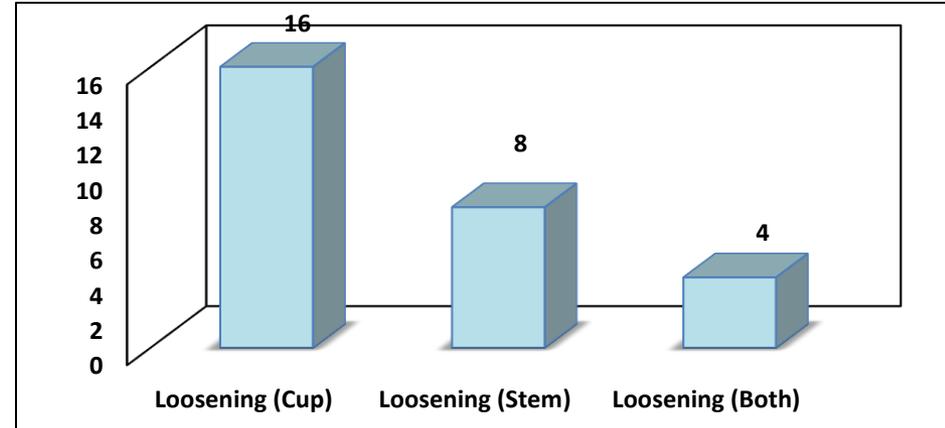
Survivorship Analysis (End point as revision for any reason)



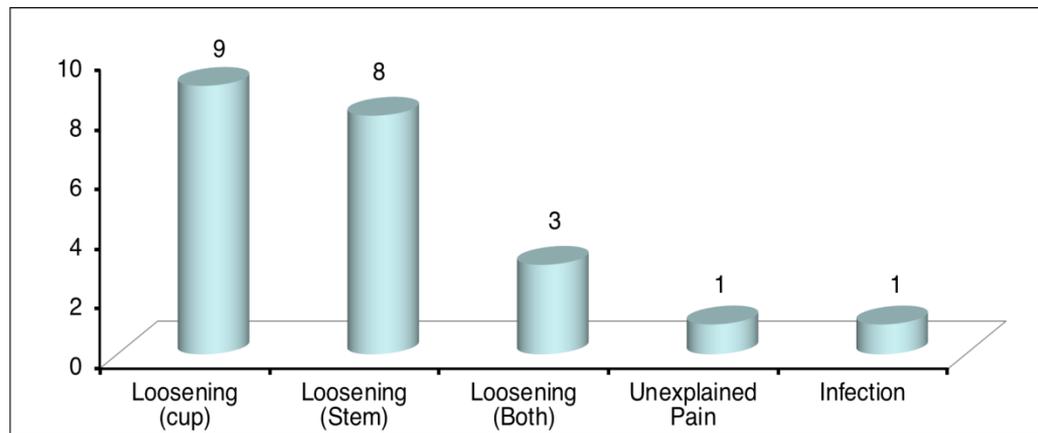
Charnley Hip Scores



Radiological Outcomes



Revisions (n=22)



Cases

Case 1



70/M

Primary Charnley THA
41 years post-op.

Both components well fixed

Case 2



51/M

15 years post-op.

Socket wear &
cavitation
in acetabulum

51/M

Socket revision with
structural bone graft
8 years post revision



Case 3



57/F

43 years post-op.
Charnley THA.

Stem Loosening

57/F

Stem revised
with femoral
impaction bone
grafting.



Discussion and Conclusions

- This study reported a large series of patients with LCPD with long term follow up (2-43.1 years, mean 14.1) who received uniform treatment in the form of cemented THA.
- Patients with LCPD undergo THA at a younger age
- Kaplan-Meier survival with end point as revision was 94.7 % at 10 years and 77.14 % at 20 years.
- Charnley hip scores available for 66 patients (77 hips) showed significant improvement in pain, function and movement at 1 year follow up.
- THA in LCPD is an effective treatment with good functional outcome but an implant survival lower than that of adult THA
- Aseptic loosening of the socket was the most common reason for revision.