

**PP-061****Clinical results of MUTARS® proximal femoral replacement****M. Bus**, S. van de Sande, S. Dijkstra*Leiden University Medical Center, Leiden, The Netherlands*

**Introduction:** Endoprosthetic replacement is the most commonly employed technique for reconstruction of proximal femoral defects. However, studies evaluating the results of such reconstructions are scarce. We aimed to assess the clinical results of proximal femoral replacement with MUTARS® endoprotheses (Implantcast, Buxtehude, Germany).

**Methods:** All consecutive patients in whom a MUTARS® modular proximal femoral prosthesis (PFP) or cemented MUTARS® filia prosthesis was used to reconstruct a defect of the proximal femur from 1999-2013 were retrospectively evaluated. Minimum follow-up was 12 months.

**Results:** Fifty patients with a total of 54 reconstructions (41 PFPs, 76%; 13 filia, 24%) were included. Mean age was 55 years (14-89). Predominant diagnoses were chondrosarcoma (n=18, 36%), osteosarcoma (n=9, 18%) and osseous metastases (n=6, 12%); three (6%) were treated for non-tumorous conditions. At follow-up, 21 patients had died (42%), after a mean of 2.3 years (2 months-11.5 years). Twenty-nine patients (58%) were alive with a mean follow-up of 4.4 years (12 months-13.8 years). Forty-three reconstructions (80%) were bipolar hemiarthroplasties. Thirty-one PFPs (76%) were uncemented, 22 of which (71%) hydroxyapatite-coated. Mean length of the reconstructed defect was 18 cm (8-32). Attachment tubes were used in 49 (91%). Nine PFPs (22%) were silver coated. During follow-up, six implants (11%) dislocated (four recurrent), three of which were hemiarthroplasties (all had attachment tubes). One patient (2%) had loosening after a complicated previous reconstruction. Liner wear occurred in two reconstructions. Deep infections occurred in eight (15%), resulting in failure of four (7%; two within two months). Of 39 patients treated for a primary tumor, four had a local recurrence (10%) and 14 had metastases (36%). None of the filia prostheses failed. With failure for mechanical reasons as the end-point, PFP survival rates at one, two and five years were 100, 92 and 85%, respectively.

**Conclusion:** MUTARS® PFPs and filia prostheses are associated with acceptable rates of mechanical complications; dislocation was the most frequent. The rate of other mechanical complications was excellent. Half of the infected implants could be retained. In all, MUTARS® prostheses provide a reliable option both for patients in the palliative phase and for those with good projected life expectancy.