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Disclosures: Please see AAOS/MSTS list of disclosures.

INTRODUCTION

Proximal femoral bone tumors are often treated with proximal femoral replacement (PFR).

Uncertainty remains regarding the rates of survivorship and complications in PFR.¹⁻⁴

This study evaluated a single institutional experience with PFR and analyzed complications and implant survival over a 15-year period.

METHODS

Thirty-eight procedures (37 patients) were identified and retrospectively reviewed from years 2005-2019.

	Frequency	Percent
Chondrosarcoma	8	21.1
Ewing sarcoma	1	2.6
Lymphoma	1	2.6
Metastatic bone disease	20	52.6
Myxofibrosarcoma	1	2.6
Osteosarcoma	4	10.5
Pathological fracture	2	5.3
Soft tissue sarcoma	1	2.6
Total	38	100.0

Table I. Preoperative diagnoses.

	Frequency*	Percent
Guardian®/ELEOS™	14	35.8
Stryker GMRS	10	25.6
LINK®	9	23.1
Zimmer Segmental	3	7.7
Stanmore Custom	1	2.6
Hemiarthroplasty	33	86.8
Single Bearing	2	5.3
Dual mobility	1	2.6
Constrained Liner	2	5.3

Table II. Surgery characteristics. *missing data omitted.

RESULTS

- The rate of revision was 5.1% (2 cases).
- Both were cemented Stryker implants - infected dislocation, periprosthetic fracture.
- Median implant survival was 115 months.
- 10-year survival probability was 93.3%.

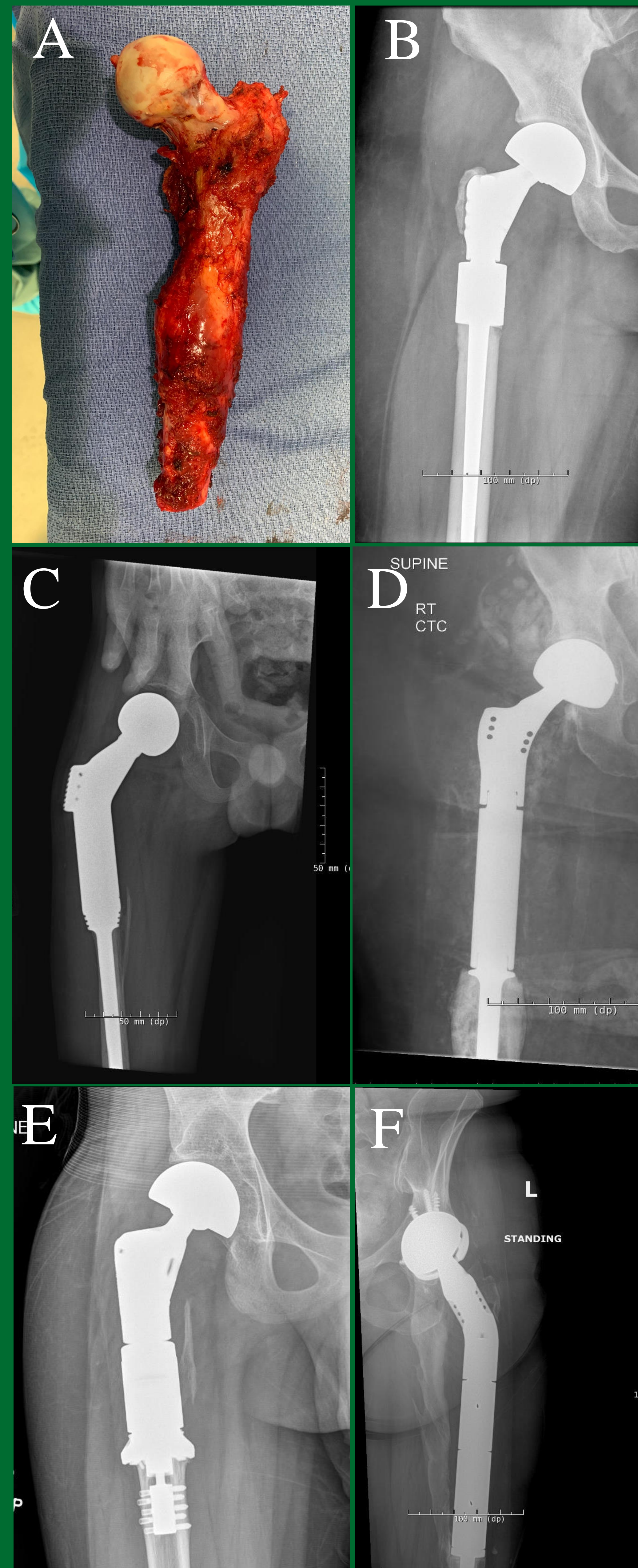


Figure 1. Following proximal femoral removal (A), an endoprosthesis was implanted: LINK® (B), custom Stanmore (C), Stryker GMRS (D), Zimmer compress (E), Guardian®/ELEOS™ (F).

RESULTS (continued)

OVERALL IMPLANT SURVIVAL

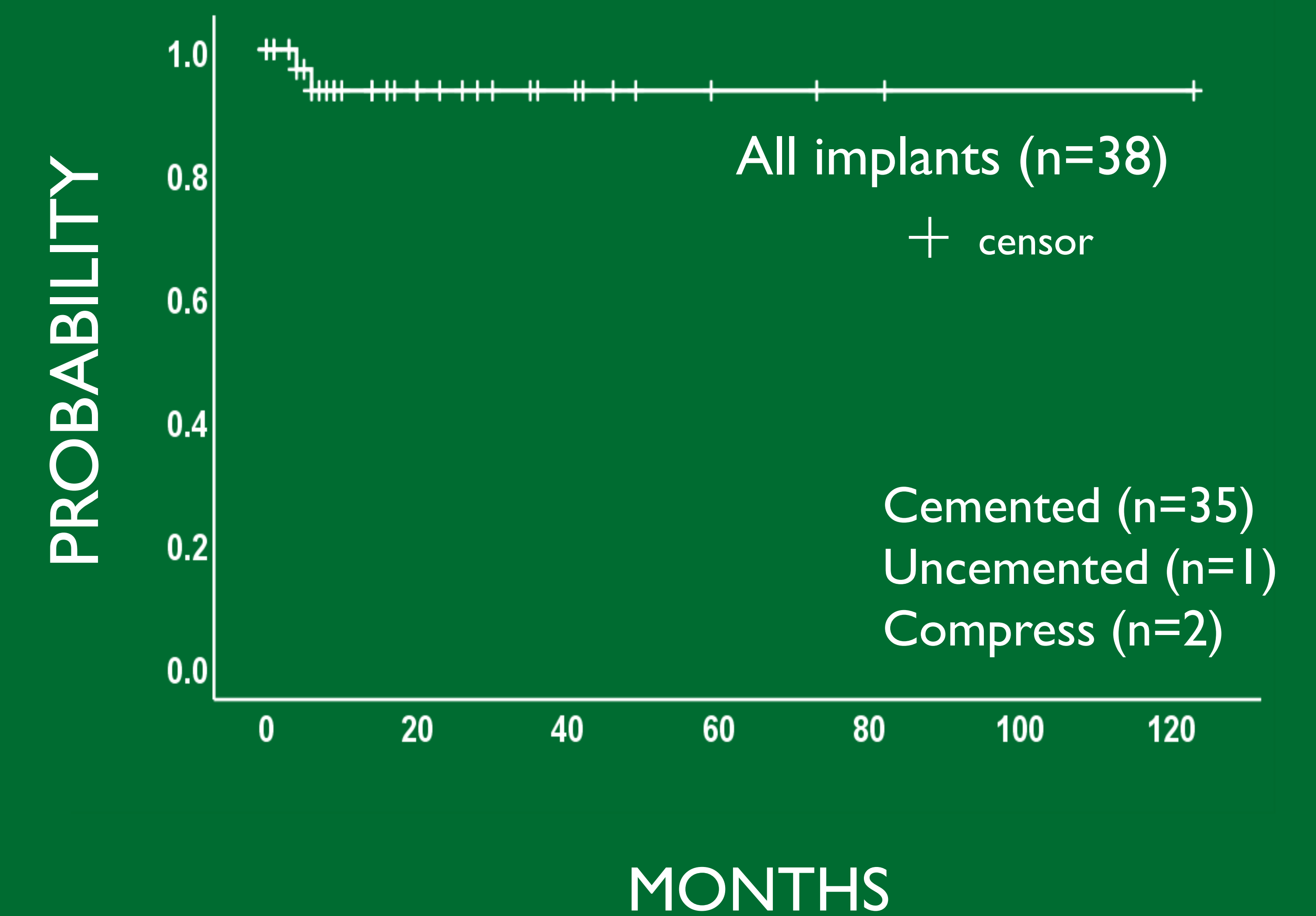


Figure 2. Proximal femoral implant survivorship (n=38).

CONCLUSIONS

For oncologic disorders of the proximal femur, modular endoprosthetic replacement is safe and reliable.

We believe our low revision rates are due to combination of improved surgical technique over time as well as postoperative use of a brace.

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