INTRODUCTION

The infection rate is high for endoprosthetic reconstruction, ranging from 3% to more than 30% for primary operations and up to 60% for revision operations. Patients with bone sarcomas are at increased risk for infection, compared to patients with arthritis undergoing joint arthroplasty because of the use of neoadjuvant chemotherapy, extensive soft tissue resection, and prolonged operative time.

Diagnosis and treatment of endoprosthetic reconstruction infections is challenging. Treatment options for this complication are similar to that for prosthetic infection involving a standard joint arthroplasty and include debridement and antibiotic administration (DAIR), primary exchange arthroplasty, or 2-stage revision arthroplasty. Moreover, patients affected by PJI have an increased risk of amputation, in particular in case of infection recurrence.

Limited data are currently available for patients with tumors with infected endoprosthetic reconstructions, with most of the series small and heterogeneous.

AIMS OF THIS EMSOS STUDY

• In general: to collect data in a systematic way of patients affected by prosthetic joint infection (PJI) of a megaprosthesis after treatment of a bone sarcoma.

- Primary endpoint: to identify predicting factors for the outcome of PJI treatment
- Secondary endpoints: to compare different reconstructions and different sites

TYPE OF STUDY

Retrospective and multicentric

PATIENT INCLUSION/EXCLUSION CRITERIA

Included:

- Patients with a history of sarcoma and reconstruction with a megaprosthesis treated for late PJI
- Different sites: proximal humerus, proximal femur, total femur, distal femur, proximal tibia

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Excluded:

- Infection within 6 weeks after reconstruction (early PJI)
- PJI on previously revisioned implants
- Follow-up < 12 months after second reconstruction
- Reconstructions other than megaprosthesis (e.g. bone graft, APC)

DATA COLLECTION AND ANALYSIS

Electronic database (Excel). Appropriate and the most suitable statistical test to be employed will be selected after assessing the entire series size.

DATA COLLECTING CENTER

Department of Orthopedics, IRCCS Policlinico di Sant'Orsola, Bologna, Italy Dr. Andrea Sambri (<u>andrea.sambri@aosp.bo.it</u>).

Should you have any question regarding this EMSOS study, please do not hesitate to contact us.

Thank you for your much rewarded help!