## PP-010

# Adamantinoma of the bone - Long-term results of a retrospective two-center study

**C. Tiedke**[1], A. Leithner[2], K. Bodo[2], M. Werner[1], P.-U. Tunn[1]

[1] *Sarkomzentrum Berlin Brandenburg, Berlin, Gemany*

[2] *Medical University of Graz, Graz, Austria*

**Background:** Adamantinomas are very rare malignancies, they account for about 0.1 to 0.48% of all malignant bone tumors. They are commonly located in the tibia. Their characteristics are slow destructive growth, late recurrences and late metastases. The treatment of adamantinomas is surgery. The aim of this retrospective analysis is to determine the diagnostic criteria and long term prognostic factors.

**Patients/Methods:** From 1993 to 2014 12 patients (female n = 4, male n = 8) with an adamantinoma (classic adamantinoma n = 11, juvenile adamantinoma n = 1) were treated. The age average was 39.2 years (5 to 78 years). The tibia was the most common site (n = 10), followed by the proximal femur and the fibula (n = 1). The tumor size was in average 10.62 cm. The median follow up was 42.5 months. The data collection was based on the medical records and the follow-up-results.

**Results:** The median time interval from first symptoms to the first imaging was 28 weeks, from imaging to biopsy 3.75 weeks and from biopsy to surgery 7.6 weeks. All patients were treated surgically. Replacement of an endoprosthesis (n = 3), biological reconstruction with a bilateral fibula graft and plate fixation (n = 7), amputation (n = 2) were performed. An R0 resection was documented in 10 patients, for 2 patients there was no information about the resection status. 4 patients had complications after the surgical treatment (nonunion n = 1, infection of endoprosthesis n = 1, dislocation of the endoprosthesis n = 1, wound infection n = 1). In one case, a recurrent infection of the endoprosthesis resulted in an amputation. No local recurrence was identified and in no case metastases were detected during follow-up.

**Conclusion:** The striking findings are the extremely long intervals from the first complaints to the first imaging and from biopsy to the therapy. They both can be explained by the moderate symptoms in most cases, as well as the difficulty of the histopathological diagnosis. Due to the frequent diaphyseal localization biological reconstruction methods have been established. The prognosis after R0 resection can be assessed as very good.