

**FC-061****The role of PET scan and biopsy in restaging patients with primary bone lymphoma**

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Introduction: Lymphomas rarely originate from bone, constituting less than 1% of these tumors. Chemoradiation is the mainstay of treatment; however, surgery is frequently needed either for bone stabilization or for curative purposes, since it is suggested that wide resection is associated with improved survivorship.^[1]

Methods: We retrospectively analyzed 16 patients with primary bone lymphoma operated during the last 10 years in a single institution. All but one had non- Hodgkin lymphomas. 5 cases were located in the femur, 4 in spine, 2 in tibia, 2 in the hip, 2 in the pelvis and 1 in the humerus. After the diagnosis was established, most of the patients underwent chemoradiation (unless a pathological fracture necessitated stabilization) and then restaging was performed (typically including PET) plus biopsy in equivocal cases. If viable tumor remained or there was impending fracture, we proceeded with operative treatment. In this manner, 2 patients had hip megaprosthesis reconstruction, 4 patients' curettage- PMMA placement, 2 had ORIF and in one patient with progressive kyphotic deformity kyphoplasty was performed.

Results: In 2 patients data were missing and were considered non- evaluable. In the remaining cases, one from the two patients with megaprosthesis had deep infection and was successfully treated with 2 stage-revision. No other hardware or procedure related complications were encountered. None from the operated patients experienced local relapse and the majority of the patient are alive in the latest follow- up.

Conclusion: Whereas in primary bone lymphomas chemoradiation is the preferred treatment modality, surgery is frequently warranted either for stability purposes or to improve survival. PET scan plus/ or biopsy are very useful to determine if remaining tumor exists that needs to be addresses surgically.

References:

¹ Mavrogenis etal, The role of surgery for haematologic neoplasms of bone, Acta Orthop Belg. 2012, 78, 382-392