

Number & Title: 11287: Oncological outcome of extremity synovial sarcomas treated with multimodality management

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Background: Synovial sarcoma is a biologically aggressive histological subtype, which accounts for about 8% of all soft-tissue sarcoma. Literature on this rare malignancy includes short case series only. Early diagnosis and multimodality treatment can yield good oncological and functional outcome.

Purposes: The present study was conducted with an aim to determine oncological outcome of extremity synovial sarcomas treated with a multimodality management at our centre.

Material and methods: This is a retrospective review of a prospectively maintained database. One hundred and fifty three patients of extremity synovial sarcoma operated at our institution between January 1st 2006 and December 31st2012 were included in the study. Clinico pathological characteristics, treatment related complications and oncological outcome of all the patients was analyzed.

Results: Median duration of follow up was 38 month (Range 2 – 130 months). Seven patients were lost to follow up and hence not included in final analysis. Overall, 5 patients developed only local recurrence (LR), 62 developed only distant recurrence (DR) and 16 had both LR and DR. Of 8 patients who had margin positive, 3 had only DR and one each had LR and LR with DR. Thus the local recurrence rate in margin positive cases was 25%. The 3-year overall survival rate was 65 %for the entire cohort and for patients with localized disease it was 69.2%. The 3-year event - free survival rate of localized synovial sarcoma was 56.2%.On univariate analysis, female gender, tumor size, limb sparing surgery, margin status and use of adjuvant radiotherapy were found to be a statistically significant factor for EFS.

Conclusion: Synovial sarcoma is an aggressive soft tissue sarcoma, which requires multimodality management for better outcomes. Limb sparing surgery is possible in majority of patients. Size is the single most important prognostic factor affecting survival.Adjuvant radiotherapy reduces the incidence of local recurrence. The role of adjuvant chemotherapy is not well established.