Ewing sarcoma of the sacrum: clinical outcome of 19 patients in a single institution

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Background:
Ewing’s sarcoma occurs rarely in the sacrum with incidence of 1-2%. Although overall results of treatment of Ewing’s sarcoma have improved with multimodal strategies, unfortunately, in the sacrum it has worse prognosis than in other sites. A retrospective analysis describes our experience with respect to oncological outcome and neurologic function.

Methods: We retrospectively reviewed 19 patients with Ewing’s sarcoma of the sacrum treated between September 1980 and December 2011. Pain and neurologic impairment were the most common symptoms. The mean duration of symptoms was 7.8 months. Three patients received surgery with or without radiation and chemotherapy. One patient had radiotherapy alone. Chemotherapy was given to 18 patients, in 10 of them followed by radiation.

Results:
The mean follow-up was 7.26 years (range 6 months-27 years). In 2 cases we performed surgery, both of them developed local recurrence. Seven patients had metastases at diagnosis while other 5 patients developed metastases during follow up. Overall 13 patients died at mean of 4.72 during the follow-up. The 5-year overall survival (OS) and the 5-year event-free survival (EFS) were respectively 47.3% and 31.5%. Gender and age did not appear to influence OS or EFS statistically.

Conclusions:
The outcome of Ewing’s sarcoma of the sacrum was unrelated to gender, age, metastasis at diagnosis and local treatment strategy. Our experience showed that although multimodal treatment could improve the overall survival, Ewing’s sarcoma of the sacrum had a significantly worse outcome than in other primary locations.

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