

Good Local Control is Essential in the Treatment of Non-metastatic Pelvic Osteosarcoma: Oncological results of 68 pelvic osteosarcoma treated with chemotherapy and surgical resection in Peking University People's Hospital

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Purpose: To define patients, tumor characteristics and therapy results of high-grade pelvic osteosarcoma treated with chemotherapy and surgical resection in Peking University People's Hospital.

Patients and methods: We retrospectively reviewed data from 2000 to 2014 with high-grade pelvic osteosarcoma. Sixty-eight patients were eligible for this analysis. At diagnosis, 20(29.4%) had metastatic disease. The minimum follow-up was 3 months (mean, 29 months; range 3-140 months).

Results: The estimates of the 5-year OS and EFS were 30.6% and 20.8%, respectively. The 5 year OS was 0% and 45.4% in patients with and without metastasis. Sacrum infiltration and a large tumor size of more than 15cm were important predictors for a worse prognosis. Good response (necrosis more than 90%) was not associated with a better prognosis. For patients with non-metastatic disease, local recurrence was a strong predictor for a relatively lower OS rate. More than 60% of non-metastatic patients who successfully got good local control can achieve a long-term survival.

Conclusion: The prognosis of high-grade pelvic osteosarcoma remained poor despite modern multimodality treatment. Patients with non-metastatic disease had a relatively promising prognosis on the basis of good local control.