Oncologic Outcomes and Prognostic Factors for Patients with Fungating soft tissue sarcomas

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Abstract

Background

Fungating lesion is one of the poor prognostic factors for patient with soft-tissue sarcoma. However, only quite few articles mentioned this factor to influence disease-specific, local-recurrent-free and metastasis-free survival. We conducted this study to evaluate the oncologic outcomes and identified prognostic factors in patients with fungating soft tissue sarcoma.

Materials and Methods

We retrospectively reviewed 102 consecutive patients with soft-tissue sarcoma who was treated in our hospital between January 2009 and December 2014. The follow-up time was 37.5 months (range, 9-79) for surviving patients and 20.2 months (range, 1-79) for all patients. The location was at extremity in 90 patients (88%) and at head, neck or trunk in 12 patients (12%). There were 20 patients presented with fungating and 82 patients presented without fungating lesions. The mean age was 49 and 47 years old and the most common diagnosis was undifferentiated pleomorphic sarcoma and liposarcoma for patients with fungating and without fungating sarcoma, respectively. All patients were treated with wide resection and followed by radiation therapy in high grade sarcoma or close margin. Patient demographic data and factors such as tumor size, grading, margin, treatment and metastasis were studied and analyzed. Survival and regression analysis were used to evaluate correlation among parameters and survival. There was no statistical difference between treatment in both groups regarding surgical margin, radiation therapy and chemotherapy.

Results

Of 20 patients with fungating soft-tissue sarcoma, all were high grade and 8 patients (40%) presented with lung metastasis at the diagnosis. Fourteen patients (70%) died of disease at 8.3 months after treatment (range, 1-19). For 82 patients without fungating soft-tissue sarcoma, 56 (68%) were high grade and 19 (23%) presented with lung metastasis at the diagnosis. Twenty-two patients (27%) died of disease at 21.8 months after treatment (range, 1-59). The mean maximum diameter was 15.3 cm (range, 5-32) and 12.2 cm (range, 1-37) for patients with fungating and without fungating sarcoma, respectively (P=0.12).

The 3-year disease specific survival, local recurrence-free survival and metastasis-free survival for patients with fungating and without fungating lesion was 22% and 69% (P<0.0001), 67% and 88% (P=0.0019) and 22% and 63% (P=0.0002), respectively. Considering only high-grade sarcoma patients without metastasis at the diagnosis, the 3-year disease specific survival, local recurrence-free survival and metastasis-free survival for patients with fungating and without fungating lesion was 40% and 70% (P=0.04), 61% and 88% (P=0.005) and 34% and 63% (P=0.025), respectively.

On multivariate analysis of fungating sarcomas, age more than 60 year-old and lung metastasis at presentation were significant poor prognostic factors. The hazard ratios were 5 and 6.8, respectively.

Conclusion

Patients with fungation soft-tissue sarcoma had significantly lower disease-specific, local recurrence-free and metastasis-free survival when compare to patients without fungating soft-tissue sarcoma. High recurrence rates as well as early metastasis were also clearly demonstrated which reflected the aggressive nature of fungating soft-tissue sarcoma and the necessity of fast multidisciplinary management.