

## **Commentary on treatment patterns among recurrent/metastatic soft tissue sarcoma by medical oncologists.**

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### **Abstract**

**As new antitumor drugs to soft tissue sarcoma (STS) have been approved, clinical data about the patterns of treatment of STS patients were reported from many Western countries, but those from Asia were lacking. We retrospectively reviewed the clinical records of 273 STS patients consulted medical oncologists in the multidisciplinary team in the cancer center, and the data might help considering treatment strategies to STS patients.**

**Keywords:** Soft tissue sarcoma, Multimodal treatment, Medical oncology, Patient survivorship.

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### **Commentary**

Soft tissue sarcoma (STS) is a rare component of malignant solid tumors, but it may arise from almost all over the body; about half of them originates from upper and lower extremities, and the other half from head and neck, retroperitoneum, urogenital organs, and so on [1]. Due to such anatomical diversity, STS patients usually see surgeons with specialty of the organs involved at first, and if the STS are localized, they are usually treated by surgical resections by the surgeons. Some STS patients are, however, locally and/or metastatically recurrent and there are also patients diagnosed as unresectable at occurrence. Moreover, STS are diverse in terms of pathological diagnosis; there are more than 100 subtypes in STS, and some of them needs multidisciplinary treatments including radiotherapy and chemotherapy [2].

Standard systemic chemotherapy to recurrent and/or metastatic STS remains doxorubicin-based regimen in most pathological subtypes, but recently, new systemic treatment options of STS have been approved as salvage setting following doxorubicin-based therapy, such as pazopanib, trabectedin, and eribulin [3]; efficacy of these new drugs are known to be different in pathological subtypes, so choosing appropriate treatment strategies based on each patient's pathological subtypes is in need. These backgrounds have brought the needs of information about treatment patterns of recurrent and/or metastatic STS patients, and many retrospective data of large cancer centers or national database were reported [4-6], but clinical data from Asian countries have been insufficient yet.

In Japan, due to lack of medical oncologists, orthopedic surgeons had to deal with chemotherapy of STS patients for long times. In our hospital, multidisciplinary center of sarcoma treatment was established in August 2012, and medical oncologists have become to manage STS patients as members

of multidisciplinary team. We retrospectively reviewed treatment details of STS patients consulted to the department of medical oncology [7].

Total of 273 STS patients were consulted to the department of medical oncology, and 185 (67.8%) of them received systemic chemotherapy. Among them, 20 patients underwent chemotherapy in a definitive/perioperative setting, and 171 patients underwent chemotherapy in a salvage setting. Primary lesions most frequently observed in 171 patients receiving salvage chemotherapy are upper/lower extremities (45 patients, 26.3%), followed by intra-abdomen/retroperitoneum (42 patients, 24.6%). As for pathological diagnosis, liposarcoma (including dedifferentiated, myxoid/round-cell, well-differentiated and pleomorphic) was most frequently included (32 patients, 18.7%), following leiomyosarcoma (29 patients, 17.0%).

Doxorubicin was administered before or after consulting medical oncologists in most patients, and 70 patients received doxorubicin-based regimen as the first line after consulting medical oncologists. As for newly approved antitumor drugs in 2010's, pazopanib was most prescribed (97 patients), followed by trabectedin (23 patients) and eribulin (21 patients); the differences of number of patients prescribed new drugs reflected the periods of approval of each drug (pazopanib in 2012, trabectedin in 2015 and eribulin in 2016). Moreover, 32 patients were incorporated to clinical trials. The efficacy of each antitumor drug was evaluated by the progression-free survival (PFS). It is unable to compare the efficacy of each regimen because of the limitation of retrospective, non-comparative evaluation, but PFS of each regimen was not so far different from those of prospective clinical trials.

There were STS patients that were consulted to the department of medical oncology but that did not receive any

chemotherapy. Some of them had very advanced diseases and received only palliative care, but some had no recurrence of disease after the curative surgical resection; they needed follow-up management and support of survivorship. Not only performing chemotherapy, management of follow-up is also the important mission of medical oncologists.

Our data, from the medical oncologists of multidisciplinary team in the cancer center, is one of the large-scale data showing treatment patterns of STS patients, especially in Asia. It could be helpful of considering treatment strategies of STS patients.

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