MedicalXpress

First data on rare sarcomas in Asian patients presented

December 16 2016

The first data on rare sarcomas in Asian patients is presented in three studies today at the ESMO Asia 2016 Congress in Singapore. Just half of patients with advanced angiosarcoma received chemotherapy even though it improved overall survival. CIC-rearranged sarcomas are shown to have a much worse prognosis than BCOR-rearranged sarcomas and clinical features are identified to aid accurate diagnoses.

Angiosarcoma is the focus of two studies conducted by the newly formed Asian Sarcoma Consortium (ASC). This heterogeneous cancer has two distinct subtypes: elderly patients with scalp/cutaneous disease and a younger cohort with visceral disease typically in the liver, vascular systems, and breast. Treatment is challenging since the disease tends to be infiltrative, making surgery with clear margins difficult, while radiation is a poor option for tumours on the scalp and face. Chemotherapy has demonstrated activity in angiosarcoma but long term remission is rare.

Both studies retrospectively included patients attending eight sites in six countries during 1990 to 2016. The first study outlines the epidemiology, real world treatment and clinical outcomes of angiosarcoma in Asia. The median age of the 423 patients was 67 years, about 60% had cutaneous angiosarcoma (they were more likely to be older, male, and have localised disease), while 40% had visceral angiosarcoma.

In the localised setting, only about 60% of patients underwent surgery, but this was significantly lower in the cutaneous (55%) than visceral

(75%) cohort. In those who underwent surgery, negative margins were only achieved in approximately 70% of cases. Close to half of patients who underwent surgery relapsed. Median relapse free survival was just 12.3 months with no statistical difference between the cutaneous (12.9 months) versus visceral (9.5 months) groups. Patients were more likely to relapse if they were more than 65 years old or had positive surgical margins.

In the advanced setting, only about half of patients received chemotherapy. Median overall survival was 9.5 months with no significant difference between cutaneous (11.5 months) and visceral (8.3 months) groups. ECOG (Eastern Cooperative Oncology Group) performance status was an independent predictor of survival. However, after adjusting for ECOG performance status, overall survival was significantly better in patients who received chemotherapy than those who did not.

"This is one of the largest studies in angiosarcoma and we found that overall prognosis was poor," said lead author Professor Richard Quek, deputy head and senior consultant, National Cancer Centre Singapore. "In patients with localised disease, negative surgical margin was prognostic for relapse free survival yet it was only achieved in 70% of patients. Neoadjuvant (pre-operative) treatment, be it chemotherapy or radiation, might enhance resectability of these tumours and thereby improve survival outcomes."

Quek continued: "In patients with advanced disease we demonstrated that after adjusting for ECOG performance status, chemotherapy was associated with improved overall survival. But only half of our patients actually received chemotherapy, hence it would be important to understand the reasons behind this low treatment rate. Could these be physician-related factors? And if so, is more sarcoma-related continuing medical education needed to enhance care for our patients?"

The second angiosarcoma study outlined the clinical characteristics and treatment of 277 patients with advanced metastatic or unresectable disease. The median age was 64 years. The predictors of better prognosis were younger age, female sex, and cutaneous (rather than visceral) disease. Use of chemotherapy gradually increased over the 20-year period, with a preference for paclitaxel and liposomal doxorubicin over other treatments. Progression-free survival in patients receiving at least one line of chemotherapy was 3.8 months. Overall survival was 8.3 months but was significantly higher in patients who received at least one line of palliative chemotherapy (11.5 months) than those who did not (4.4 months).

"It's the first time we have data on expected survival for Asian patients with advanced metastatic or unresectable angiosarcoma," said lead author Dr Tom Chen, attending physician, National Taiwan University Hospital, Taipei, Taiwan. "This data will help us to develop clinical trials and new treatments for Asian angiosarcoma patients."

The third study focused on Ewing sarcoma-like small round cell sarcomas.3 Ewing sarcoma is molecularly characterised by a EWSR1 gene alteration or FUS rearrangement. Small round cell sarcomas without these molecular characteristics are designated "Ewing sarcoma-like" disease. Recent molecular genetic studies have identified CIC-rearranged sarcoma (CIC-DUX4, CIC-DUX4L, CIC-FOXO4) and BCOR-rearranged sarcoma (BCOR-CCNB3, BCOR-MAML3, ZC3H7B-BCOR) among these Ewing sarcoma-like small round cell sarcomas. The study presented today describes the clinical characteristics and treatment outcomes of these two sarcomas.

The study included 17 patients with CIC sarcoma, of whom 12 were male. Median age was 22 years, all cases were soft tissue tumours, and 59% of patients had local pain. The seven BCOR sarcoma patients were all male. Median age was 14 years and cases included bone and soft

tissue tumours.

The five-year overall survival rate was 28.2% for CIC sarcoma and 100% for BCOR sarcoma. Metastases were present in 71% of CIC patients at the initial visit and none of the BCOR patients. Only 29% of CIC patients responded to chemotherapy compared to 75% of BCOR patients.

"CIC-rearranged sarcomas have a much worse prognosis than BCOR-rearranged sarcomas," said lead author Dr Makoto Endo, attending physician, National Cancer Centre, Tokyo, Japan. "CIC and BCOR sarcomas were previously classified as the same tumour. Our research will help us to make a precise diagnosis and should improve the management of these patients."

Commenting on the studies, Professor Thomas Brodowicz, programme director, Bone and Soft Tissue-Sarcoma Unit, Medical University Vienna, Austria, said: "The two studies on angiosarcoma show that immediate progression-free survival and overall survival are low, which reflects the aggressiveness of this disease. It would be useful to have a more detailed breakdown of the patients - for example, the treatment and outcomes of primary angiosarcoma versus secondary, which forms at the site of radiation treatment for a previous cancer. It would also be helpful to know whether paclitaxel is more effective when taken every three weeks or weekly, which has an antiangiogenic effect that could be beneficial in angiosarcoma."

He continued: "The study by Dr Endo provides practice-changing information. It shows that Ewing sarcoma-like small round cell sarcomas can be further categorised by their specific mutations, which have a strong prognostic impact. This should help us to tailor treatment."