radiotherapy in patients with incomplete resection. However, patients with complete resection alone had better survival than those undergoing incomplete resection combined with postoperative radiotherapy. Therefore, the effect of postoperative radiotherapy on survival in patients with complete resection remains to be elucidated.

The role of chemotherapy in the treatment of soft-tissue sarcomas, especially postoperative therapy, is not finally settled due to the rarity of this disease. Experiences were mainly obtained based on prospective trials or retrospective studies from sarcoma of the extremities or retroperitoneum [18,23]. Italiano et al. [17] reported that neither neo-adjuvant nor adjuvant chemotherapy had significant effect on survival. On the contrary, a meta-analysis showed evidence that adjuvant chemotherapy significantly improved the overall recurrence-free survival and noted a trend towards improved OS [24]. Moreover, Eriksson recommended that the combination of doxorubicin and ifosfamide as a standard therapy increased the possibility of surgery with curative intent, and new drugs such as taxanes, gemcitabine and trabectedin also showed promising results [19]. In our study, the patients in the chemotherapy group yielded longer DFS and OS with no statistical significance, probably due to the heterogeneity and limited number of mediastinal cases treated with chemotherapy. After aggressive local treatment, distant metastasis became the major factor responsible for death, potentially suggesting the vital role of chemotherapy in the multidisciplinary treatment modalities.

Because of the rarity of this disease, the number of our series is small. Due to the heterogeneity and small numbers, multivariate analyses cannot be performed and the conclusions of this small subgroup must be interpreted with caution.

To sum up, the present study provides several important implications for the treatment of primary mediastinal sarcomas. First and foremost, complete resection should be attempted whenever possible. Furthermore, radiotherapy might contribute to good local control especially those with incomplete resection or high-grade carcinoma. However, the role of chemotherapy is still elusive. Given the rarity and complexity of primary mediastinal sarcomas, treatment options must be optimized by a multidisciplinary forum on a case-by-case basis depending on the clinical and histological characteristics at the time of diagnosis.

Conflict of interest: none declared.

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eComment. Primary mediastinal sarcomas

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We have read with great interest the article by Luo et al. concerning the surgical outcomes for primary mediastinal sarcomas.[1] Sarcomas of the mediastinum and great vessels remain a rare subgroup of soft tissue sarcomas and prognosis remains poor with patients often presenting with advanced disease. Surgical resection represents the mainstay of therapy.

The aim of this brief comment is to highlight the role of chemotherapy in a preoperative and postoperative setting. The key is to identify chemosensitive subtypes of
mediastinal sarcomas (i.e. synovial sarcomas) and there is evidence of satisfactory results in the literature [2,3].

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References


eComment. Soft-tissue sarcomas in a nutshell

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We read this interesting retrospective study by Luo et al. [1] and we would like to add a comment on soft-tissue sarcomas.

Soft-tissue sarcomas are a group of malignant neoplasms originating from mesenchymal tissue and deriving etymologically from the Greek word ‘σάρξ’ (flesh) and the suffix ‘-αυς’ (tumour). They make up less than 2% and 10–15% of all adult and paediatric malignant neoplasms respectively and their overall incidence is approximately 6 per 100 000 persons/year [2].

Histological typing (according to WHO) is based on the tissue giving origin to the tumour, and histological grading, which is a good predictor of distant metastasis and overall survival, is based on a three-grade system (1–3) and depends on the mitotic index and the extent of tumour necrosis [3].

Staging of these tumours is clinically important and imparts additional prognostic information. The TNM system is employed, which combines histological grade, tumour size and depth, regional lymph node involvement and distant metastases [3].

Histological diagnosis should be based on the WHO classification for the grade and stage to be determined. Five-year survival has been reported to be 95%, 75%, and 45% in patients with grade 1, 2, and 3 sarcomas respectively [2].

Thoracic sarcomas account for 10% of all sarcomas and the rest are found on upper (15%) and lower (35%) limbs, visceral organs (15%), abdomen and retroperitoneum (15%), followed by head and neck (10%) [2].

Metastasis may either occur locally to nearby tissues or distally through the circulatory system predominantly to the lung and less frequently to the liver and bones [2].

Good prognosis is associated with young age, female gender, low histological grade, stage 1 tumours and complete surgical resection, while poor prognosis is related to high-grade tumours, stage 2 sarcomas, incomplete surgical removal, metastatic disease and relapses as well as aggressive histological subtypes [2].

For non-metastatic disease, the treatment of choice is surgical removal, which, depending on its outcomes, may be combined with radiotherapy. Each case should be approached on an individual basis and assessed by a multi-disciplinary team considering the need for neoadjuvant or adjuvant chemotherapy and its medications [2].

Even though there is inadequate evidence to dictate specific policies for follow-up, risk assessment should be conducted based on tumour grade, size and site with primary focus on the lungs (for metastatic disease) for routine follow-up. Standard follow-up should consist of clinical history, clinical examination for local recurrence (followed by ultrasound scan or MRI if needed), and chest X-ray with subsequent CT scan for suspicious lesions. The European Society of Medical Oncology (ESMO) recommends follow-up every 3–4 months in surgically treated intermediate/high-risk patients in the first 2 years, later on twice a year until the fifth year and then yearly afterwards. Those with low-grade sarcomas may be investigated for local relapse every 4–6 months, with chest X-rays or CT scan at larger intervals in the first 3–5 years, and then once a year [4,5].

In summary, the role of a multidisciplinary team is essential in the management of these challenging tumours and further well-conducted research is necessary for evidence-based guidelines to be devised [5].

Conflict of interest: none declared.

References