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Primary extraosseous Ewing sarcoma of the lung in children

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Abstract

We report a case of primary extraosseous Ewing sarcoma (EES) of the lung in a four-year-old child. In the literature, there are only a few case reports of EES located in the thorax.

Keywords: *lung tumor in children, extraosseous Ewing sarcoma*

Case Report

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Background

Extraosseous Ewing sarcoma (EES) is an uncommon malignant neoplasm in which pulmonary localisation is exceptionally rare.

Case Report

A four-year-old girl, without any medical history, was referred to our department for a lung mass (Figure 1). An initial thoracic computed tomography (CT) scan revealed a large cystic tumour in the middle of the left lung (Figure 2). The diagnosis of intrathoracic EES was made by punction under CT control. The patient was subsequently treated with six chemotherapy courses (vincristin, ifosfamid, doxorubicin, and etoposide).

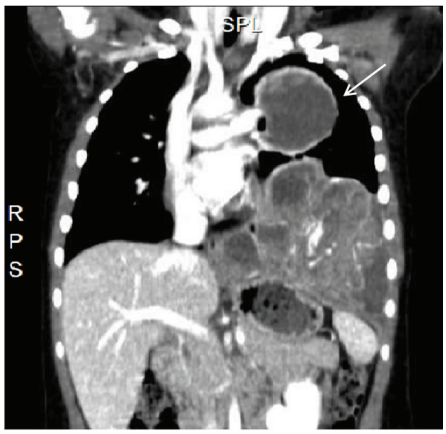

Figure 1: CT scan: coronal reconstruction of a left lung mass (arrow)

At the end of chemotherapy, after a negative search for metastasis, we performed a radical resection, which consisted of a left pneumonectomy. The pathologic examination confirmed the need for a complete resection and also confirmed the initial diagnosis. During an interdisciplinary meeting, it was decided that postoperatively the patient would receive seven courses of chemotherapy (vincristin, actinomycin, and ifosfamid) without radiotherapy. The patient is currently receiving postoperative chemotherapy.

Discussion

In our case, the patient was a four-year-old girl, which was unusually young when compared with the previously reported cases [1–6]. The most common CT finding of EES reported is a heterogeneous mass [1–3], but in the present case, the CT showed the EES as a cystic structure.

The chemotherapy treatment was done according to the Eurowing 99 protocol and was also followed by a very aggressive surgery justified by the size, location, as well as the aggressive character of the tumour [2–5]. According to most of the authors, this kind of tumour should be resected as an attempt to obtain complete control of the disease [1–6].

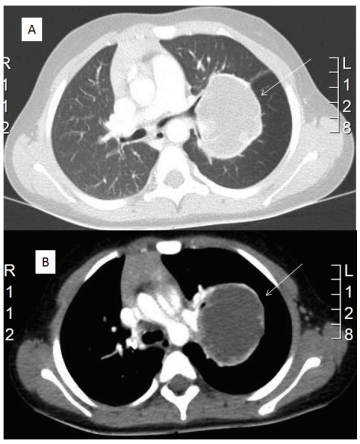

Figure 2: CT scan: (A) cystic tumour in the middle of left lung between the superior and the lower bronchus with maximum diameter of 10/8 cm (arrow); (B) close contact of the tumour (arrow) with the left pulmonary artery

Conclusion

Intrathoracic EESs are extremely rare and complex conditions requiring a pluridisciplinary collaboration. This case highlights the importance of preoperative evaluation and strategy in aggressive tumours.

Conflicts of interest

The authors declare that there are no conflicts of interest that could be perceived as prejudicing the impartiality of the research reported.

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