Primary extrasosseous Ewing sarcoma of the lung in children

Nidal Alsit ¹, Clara Fernandez ², Jean Luc Michel ³, Linda Sakhri ⁴, Audrey Derouet ⁵ and Augustin Pirvu ⁶

¹Department of Thoracic, Vascular, and Cardiac Surgery, University Hospital Felix Guyon, Reunion, France
²Department of Pathological Anatomy, University Hospital Felix Guyon, Reunion, France
³Department of Pediatrics Surgery, University Hospital Felix Guyon, Reunion, France
⁴Department of Onco-pneumology, University Hospital Grenoble, France
⁵Department of Pediatrics, University Hospital Felix Guyon, Reunion, France
⁶Department of Thoracic, Vascular, and Endocrine Surgery, University Hospital Grenoble, France

Correspondence to: Augustin Pirvu. Email: pb_augustin@yahoo.com; apirvu@chu-grenoble.fr

The report in this article of the treatment the patient received is incorrect. Three of the authors (Jean Luc Michel, Clara Fernandez and Audrey Derouet) were unaware that their names had been added to the author list.

The three remaining authors (Nidal Alsit, Linda Sakhri and Augustin Pirvu) were not involved with the treatment of the patient.

Abstract

We report a case of primary extrasosseous 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.

A Retraction for this article has been published in 2013 ecancer 7 332.

Keywords: lung tumor in children, extrasosseous Ewing sarcoma
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 puncture under CT control. The patient was subsequently treated with six chemotherapy courses (vincristin, ifosfamid, doxorubicin, and etoposide).

![CT scan: coronal reconstruction of a left lung mass (arrow)](image)

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 inter-disciplinary 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].
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.

References