CASE REPORT

A rare case of a large visceral pleural metastatic phyllodes tumour

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Summary
Phyllodes tumour represents a rare entity of breast cancer. Histologically its characteristics range from benign through to malignant. Metastases are reported in less than 10%, with large pulmonary metastasis being rare. We describe such a case with visceral pleural metastasis, including its management.

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Introduction
Phyllodes tumours account for less than 1% of all breast cancers. From its first description, 62 synonyms have been used to describe this entity. However, the WHO recommendation is to use phyllodes tumour as the accepted nomenclature. The histological variation includes a benign, a border and a malignant form. Surgical excision of the primary tumour without lymph node dissection is the mainstay of treatment. The tumour is relatively radio-resistant and hence only in selected cases radiotherapy is used.

Metastasis is rare, occurring in less than 10% of cases within the lung, bone and pleura. So far, only one case of giant pulmonary metastasis has been reported in the literature. We describe a case where a large pulmonary phyllodes metastasis was treated by surgical excision and adjuvant chemotherapy.

Case report
A 62-year-old female patient was referred with a finding of a space-occupying lesion in her left chest on chest radiography (Figure 1). She was being investigated for a recent complaint of weight loss, anorexia, retro-sternal discomfort and coughing. She had previously undergone bilateral mastectomy and axillary node clearance 3 years prior to this current presentation. The excised left breast tissue was a malignant phyllodes tumour with 5–8 mitoses per 10 HPFs and no positive nodes. The right breast was a Grade 2 invasive lobular carcinoma with 3 out of 15 nodes positive (PT2 PN1b). The tumour was oestrogen receptor (ER) positive but HER-2 negative. The patient had also undergone adjuvant chemotherapy and radiotherapy to the chest wall a year after the mastectomies.
Chest CT scan confirmed a 7 cm mass within her left lower lobe (Figure 2). A CT-guided biopsy was inconclusive. She, therefore, underwent a left thoracotomy and excision of the mass. Operative finding included a well-capsulated 10 cm³ lump, which was shelled out relatively easily from the left lower lobe. There were two additional small nodules on the diaphragm, which were excised. Histological analysis showed malignant spindle cell tumour with areas of necrosis, and immuno-histochemistry was positive for vimentin and CD55. These findings confirmed that the lump was a metastasis from the breast phyllodes tumour.

Post-operatively the patient did very well and was discharged home within a few days of her surgery. She has been referred to her local oncologist for consideration of adjuvant therapy.

Discussion

Benign and malignant phyllodes tumours can recur locally and both have the potential to metastasize. Overall, there are only a handful of reports in the literature about phyllodes tumour metastasizing to the lung. Of approximately 25% of malignant cases of phyllodes tumours, about 66% of cases metastasize to the lungs. Takahashi et al. has reported huge pulmonary metastases from phyllodes of a breast who presented with a left hemithorax and a large mass was seen on the CT. Pathologically, this revealed the same features of phyllodes as the previously resected breast tumour, as in the case of our patient. There have been some sparse reports of parietal pleural metastasis. Visceral pleural metastasis has not been described previously.

It is important to consider metastatic phyllodes tumours in patients with a previous history of phyllodes breast cancer. Although surgery remains the mainstay of treatment, some success has been described with radiotherapy. However, the role of both chemotherapy and radiotherapy remains to be defined.

Conflict of interest statement

None of the authors have a conflict of interest to declare in relation to this work under this sub-heading.

References