

Mediastinal recurrence from ovarian cystadenocarcinoma presenting as pleuro-pericardial cyst

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Abstract. – A 56 year-old woman (treated for ovarian cystadenocarcinoma 9-yrs before) presented a slowly increasing dyspnea. CT-scan revealed a mediastinal cyst with typical radiological pattern compatible with benign pleuro-pericardial cyst. The cyst was removed via right thoracoscopy. Surprisingly, the pathology were indicative of cystic mediastinal recurrence from ovarian adenocarcinoma.

Key Words:

Mediastinal cyst, Ovarian cancer, Mediastinum.

Introduction

Several studies have showed that thorax is a quite common site of metastases from ovarian cancer even at initial stage, this is likely to affect survival even in cases of optimal debulking¹. Although ovarian carcinoma commonly metastasises to the pleura and lung parenchyma, mediastinal deposits are infrequent.

Herein we report a challenging case of a mediastinal recurrence from ovarian cystadenocarcinoma presenting as pleuro-pericardial cyst.

Case History

A 56 year-old woman come to our attention for a slowly increasing dyspnea, originally diagnosed as chronic obstructive pulmonary disease (COPD). She failed to respond to inhaled bronchodilators and steroids.

Previous medical history was substantially unremarkable. She was a life-long non-smoker who underwent, nine years before, a combined multi-

modal therapy based on debulking surgery followed by platinum-based treatment regimen for a locally-advanced cystadenocarcinoma of the right ovary.

A chest X-ray was noted to be abnormal and a Chest Ct-scan showed a mediastinal cystic lesion at the level of the right cardio-phrenic angle (see Figure 1A and B) measuring 36 × 31 mm of diameter. The radiological pattern was compatible with benign pleuro-pericardial cyst: in details, the cystic lesion consisted of a thin-walled, sharply defined, oval homogeneous mass with a density slightly higher than water (40 HU) but without a significant uptake of contrast agent.

The radiological evaluation of the abdomen and pelvis revealed no pathological sign of ovarian tumor recurrence and the results of lab tests (CA-125 and CEA) were within the normal ranges.

Moreover, the presence of the cystic lesion was already noted (with only a slight volumetric increasing) at the CT-scans performed respectively 8 and 21 months before.

The differential diagnosis at this stage included a pericardial or bronchogenic cyst. Thus, due to the dyspnoea, she was scheduled for resection of the mediastinal mass via right video-thoracoscopy. At surgery, the cystic lesion appeared capsulated with no macroscopic signs of malignancy and was completely removed with at least 2 cm of free margins. No other pleuro-pulmonary pathological findings were observed. The patient recovered with a substantially uneventful postoperative course and breathlessness improved. Surprisingly, the definitive pathological (microscopic view, Fig-

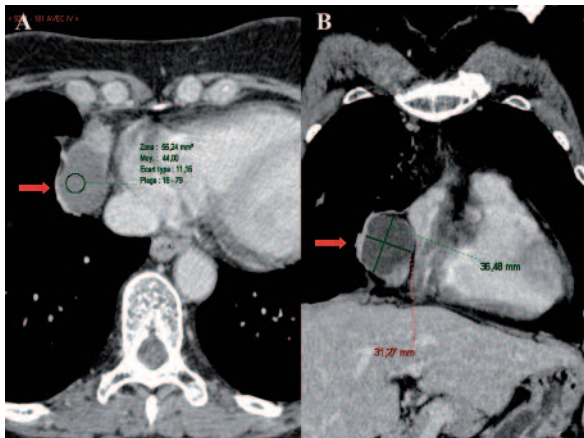


Figure 1.

ure 2A and B) and the immunohistochemical results (cytokeratin KL1 positive finding in Figure 2C and calretinin negative findings in Figure 2D) were indicative of a cystic mediastinal recurrence from poorly differentiated ovarian mucinous adenocarcinoma. The patient was

subsequently referred to the gynaecology and oncology team for treatment.

Discussion

Ovarian carcinoma remains the most lethal gynaecologic malignancy. It usually spreads out of the abdomen along different routes: lymphatic, haematogenous and transcaelomic². Thoracic involvement may be usually represented by pulmonary metastases and, even more frequently, by pleural dissemination. On the contrary, metastases to the mediastinum are not commonly encountered in primary or recurrent ovarian cancer³⁻⁶. In particular, when a mediastinal lymph nodal involvement (typically cardiophrenic angle lymph nodes) is detected, it is frequently associated with extensive intrathoracic disease, usually represented by right-sided pulmonary and pleural dissemination. Such behaviour may be explained by the anatomic arrangement of abdominal lymphatic drainage, involving first the thoracic lymphatic stations on the right side⁷.

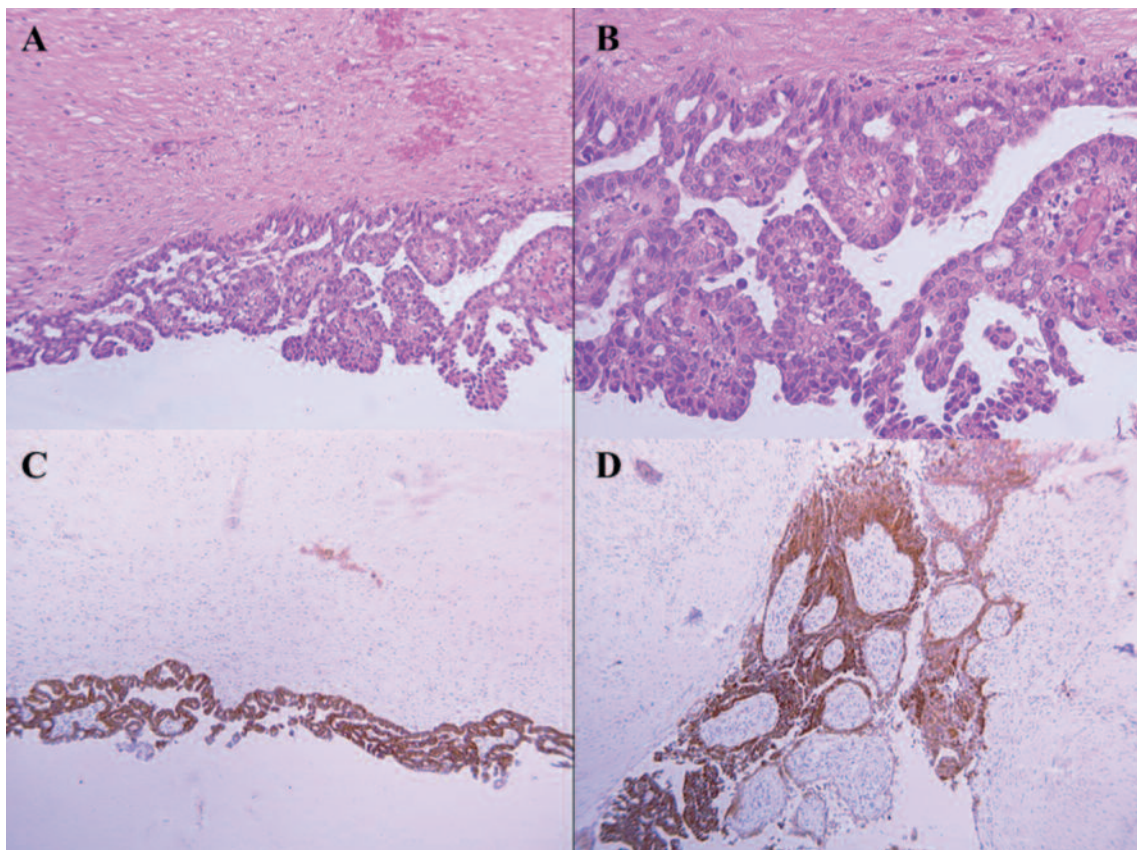


Figure 2.

On the other hand, the mediastinal recurrence presenting as an isolated mediastinal cystic lesion is only anecdotically reported in literature⁸. In such cases, the differential diagnosis may sometimes represent a real challenge for the physicians as in the present case where several clinical and radiological elements were strongly indicative for a benign mediastinal cyst.

First of all, the radiological findings (thin-walled, sharply defined and homogeneous lesion without a significant uptake of contrast agent) were compatible with a benign mediastinal cyst. Moreover, the cystic lesion was already noted at previous CT-scan with only a slight volumetric increasing and with no radiological and laboratoristic signs of ovarian recurrence.

Despite this, we preferred to perform an “en block resection” of the mediastinal cyst with at least 2 cm of free margins, because a certain diagnosis was not available at the moment of performing the surgical resection.

Conclusions

In patients with a previous history of gynaecologic neoplasms, the differential diagnosis of mediastinal cyst, even when the lesion appeared isolated or “radiological” compatible with benign disease, should take into the account a neoplastic recurrence. Indeed, although metastasis to the lungs and pleural dissemination is a more common feature of this type of tumour, the presentation with mediastinal disease (as lymph nodal involvement and even as cystic neoplastic lesion) must be borne in mind. As a consequence, when performing surgery in such cases, en-block resection with free margins is always recommended.

Conflict of Interest

The Authors declare that there are no conflicts of interest.

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