Mediastinal involvement in ovarian cancer

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DESCRIPTION
A 57-year-old woman was diagnosed with serous papillary ovarian adenocarcinoma, for which she underwent total abdominal hysterectomy, bilateral salpingo-oophorectomy, omentectomy and appendectomy (omentum, appendix and other organs other than left ovary were grossly normal). CT scan of the chest was done, which showed prevascular lymph node measuring up to 4.5 cm (figure 1). The lymph node was biopsied, which stained positive for cytokeratin 7 and Wilms tumor gene product (WT)-1, which consistent with metastatic ovarian adenocarcinoma (figure 2). The patient was recently started on chemotherapy including carboplatin and paclitaxel, and radiation therapy.

Ovarian cancer is the second most common gynaecological cancer after breast cancer and the leading cause of gynaecological cancer-related deaths.¹ Lymphatic spread and direct peritoneal tumour seeding are the most common metastatic routes of ovarian cancer.² Mediastinal involvement is a rare phenomenon in patients with ovarian adenocarcinoma, with a few reports being published in the scientific literature.³–⁶

Mediasintal involvement is an ominous sign, which indicates an advanced disease stage and poor prognosis. Clinicians should be aware that mediastinum may be involved in cases of ovarian cancer, even after performing debulking surgery for a primary ovarian tumour such as in our case.

Learning points
▸ Ovarian cancer is the second most common gynaecological malignancy, being the leading cause of gynaecological cancer-related mortality.
▸ Lymphatic spread and direct peritoneal tumour seeding are the most common metastatic routes of ovarian cancer.
▸ Mediastinal involvement is rare in patients with ovarian cancer, yet possible. Mediastinal involvement is associated with advanced disease stage and poor prognosis.

REFERENCES

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Figure 1  CT scan of the chest showing prevascular lymph node (red arrow).

Figure 2  The lymph node biopsy consistent with metastatic ovarian carcinoma.