



## WHAT'S YOUR DIAGNOSIS?

Bruce M.T. Rowat, MD, FRCPC, is this column's contributing editor. Dr. Rowat is associate professor of medicine at the University of Toronto, staff physician, general internal medicine, The Toronto Hospital, Ontario.

# “I’m Afraid It’s Not Pneumonia...”

An 82-year-old woman presents with dry cough, chest discomfort and shortness of breath.

By Jerzy K. Pawlak, MD, MSc, PhD; and Wanda Dabrowska, MD

### History

This case involves an 82-year-old woman with a long history of hypertension and dyslipidemia. She initially presented with dry cough, chest discomfort and shortness of breath. Her X-ray showed mild-to-moderate atelectasis and/or consolidation at the left lung base. A small left pleural effusion was suspected. She was treated for pneumonia with clarithromycin. One week later, she developed increasing abdominal girth and shortness of breath. Her next chest and abdomen X-ray showed bilateral pleural effusions worsening on the left. The abdomen had an overall hazy appearance consistent with ascites. The patient was referred to hospital.

### Question

What’s your diagnosis?



Figure 1. Bilateral pleural effusions.

### Tests

An infused computed tomography scan of the abdomen was done, which showed bilateral ovarian solid and cystic tumours with peritoneal and omental metastases. A large amount of ascites and bilateral pleural effusions also were noted (Figures 1 and 2). Cancer antigen (CA)

Dr. Pawlak has a general medicine practice, Winnipeg, Manitoba.

Dr. Dabrowska is with CancerCare Manitoba, St. Boniface Unit, Winnipeg, Manitoba.

# WHAT'S YOUR DIAGNOSIS?

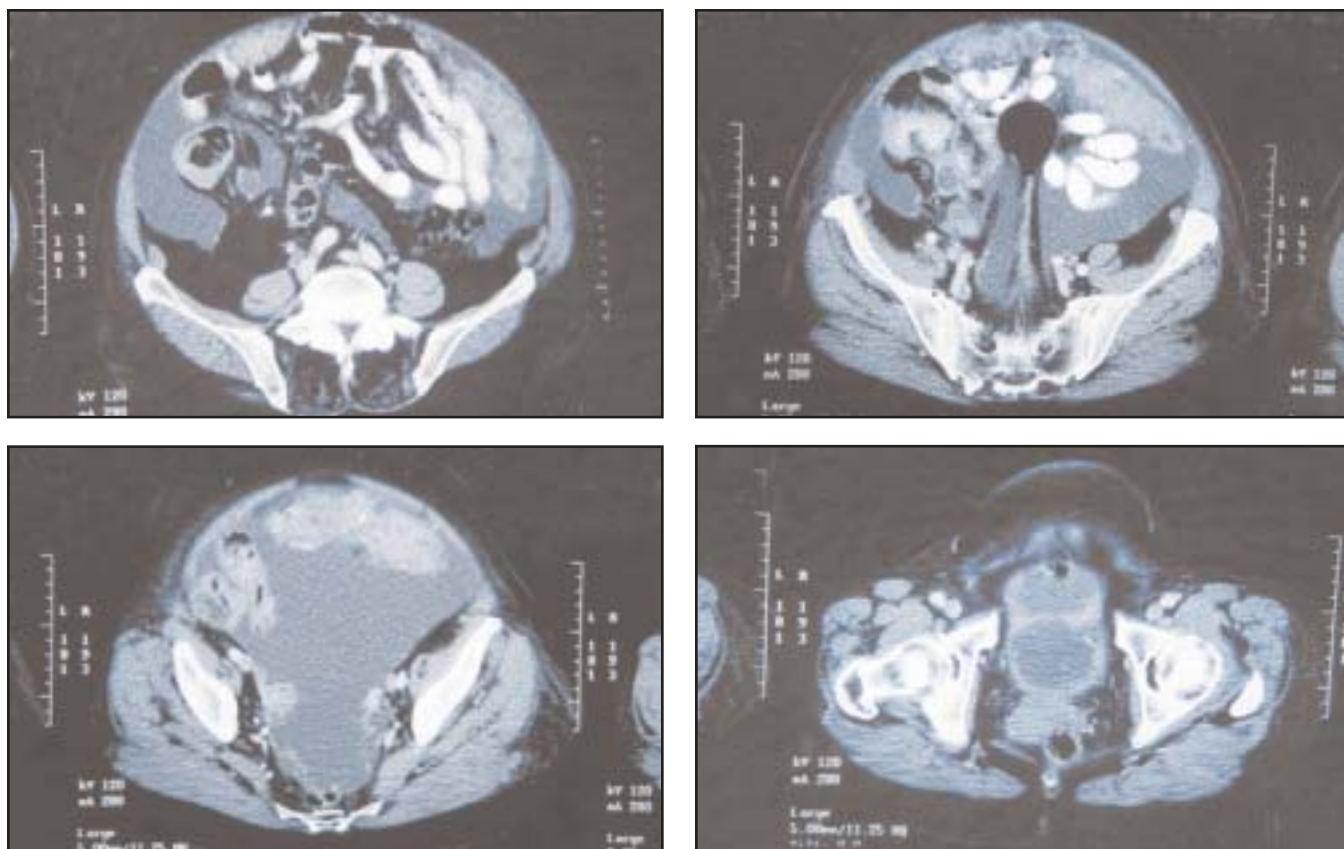


Figure 2. A large amount of ascites, bilateral ovarian solid and cystic tumours with peritoneal and omental metastases.

125 was elevated over 3,000 u/mL. A paracentesis was carried out. This was consistent with adenocarcinoma cells, which were strongly positive for keratin 7, favouring ovarian carcinoma. Carcinoembryonic antigen was negative.

## Diagnosis

Presumably carcinoma of the ovary.

## Treatment

Given her age and medical condition, the patient was not a good surgical candidate. She was empirically started on chemotherapy consisting of paclitaxel and carboplatin. She received five cycles and, so far, has responded very well.

## Discussion

This woman probably has ovarian carcinoma, which has spread to her omentum and peritoneum. She presented with Meigs' syndrome. Vincent Meigs described ovarian fibroma or other pelvic tumours associated with ascites and hydrothorax.

Malignant tumours of the ovaries account for approximately 20% of all malignancies that develop in female genital organs. Epithelial carcinoma of the ovary is the fifth most frequent cause of cancer death in women, with half of all cases occurring in women over the age of 65.<sup>1</sup> Deep sited tumours of the ovaries grow insidiously in the

abdominal cavity, often attaining a large size before being noticed by patient or physician.

Symptoms of ovarian carcinoma are related to tumour pressure, infiltration of neighbouring organs and ascites. Transdiaphragmatic spread to the pleura is common. At surgery, disease can be identified in pelvic and para-aortic nodes. Mediastinal and supraclavicular spread also may occur. Distant spread, chiefly to the lungs and liver, occurs fairly late in the course of the disease.

## Diagnosis discussion

Presence of a palpable pelvic mass associated with pelvic pressure symptoms in postmenopausal females may alert the physician to possible ovarian cancer, especially in a patient with a family history of ovarian, breast or colon carcinoma. CA 125 levels should not be used for diagnosis, as they can be elevated in other intra-abdominal malignancies with omental/peritoneal spread and in benign gynecological conditions (*i.e.*, endometriosis).<sup>2</sup> Definite diagnosis of ovarian cancer is made histologically.

## Treatment discussion

This patient was treated with intravenous chemotherapy using paclitaxel and carboplatin. Toxicity was limited to mild peripheral neuropathy. Her anorexia, shortness of breath and abdominal discomfort resolved. Neither pleural effusion nor ascites were clinically detectable at three months following the initiation of chemotherapy.

Many patients with advanced stage ovarian cancer undergo cytoreductive surgery. The effect of this procedure on survival has not been established. A variety of chemotherapeutic

regimes have been used for palliation. Common intravenous therapies include paclitaxel with cisplatin or paclitaxel with carboplatin.<sup>3</sup> These regimens also are used in therapy of cancer of unknown primary origin. Median survival in patients with ovarian carcinoma treated in a European-Canadian trial was significantly better in patients with large or low-bulk disease treated with paclitaxel-cisplatin chemotherapy *versus* cyclophosphamide-cisplatin, for 38 months *versus* 24 months respectively.<sup>4</sup> Toxicity associated with this type of chemotherapy is significant. Discussion of therapy options with a patient should be conducted within the context of toxicity and potential benefits of treatment. The option of no treatment, with supportive care, also should be discussed. Patients' expectations from chemotherapy often are unrealistic, however, significant improvement in patients' emotional functioning and global quality of life are achievable with palliative chemotherapy, regardless of rather low objective responses.<sup>5</sup> **Dx**

## References

1. Yancik R: Ovarian cancer: Age contrasts in incidence, histology, disease stage at diagnosis and mortality. *Cancer* 1993; 71(2, Suppl):517-23.
2. McGuire WP, Hoskins WJ, Brady MF, et al: Cyclophosphamide and cisplatin compared with paclitaxel in patients with stage III and stage IV ovarian cancer. *New Engl J Med* 1996; 334(1):1-6.
3. Omura GA, Brady MF, Homesley HD, et al: Long-term follow-up and prognostic factor analysis in advanced ovarian carcinoma: The Gynecologic Oncology Group experience. *Journal of Clinical Oncology* 1991; 9(7):1138-50.
4. DuBois A, Richter B, Warm M, et al, for the AGO Study Group: Cisplatin/paclitaxel vs carboplatin/paclitaxel as 1st-line treatment in ovarian cancer. *Proceedings of the American Society of Clinical Oncology* 1998; 17:A1395, 316a.
5. Doyle C, Crump M, Pintilie M, et al: Does palliative chemotherapy palliate? Evaluation of expectations, outcomes and costs in women receiving chemotherapy for advanced ovarian cancer. *Journal of Clinical Oncology* 2001; 19(5):1266-74.