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Case report

Prolonged remission of endometrial cancer with paclitaxel and carboplatin

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Recurrent endometrial cancer has grave prognosis. Chemotherapy and hormonal therapy are mainstays of palliative treatment. Unfortunately the frequency of complete response and duration of progression-free interval are limited. This case report describes a patient with recurrent metastatic endometrial cancer who was initially treated with radiotherapy followed by surgery. Her recurrent tumor progressed during treatment with external radiation and a progestogen. She received paclitaxel (135 mg/m^2 i.v. infusion over 24 h) and carboplatin (AUC 7.5 μg·h/ml) every 4 weeks with complete remission after 8 months which has persisted for 22 months. Paclitaxel and carboplatin combination should be considered for the treatment of endometrial cancer. [© 1998 Rapid Science Ltd.]

Key words: Carboplatin, endometrial cancer, paclitaxel, postinduction treatment, prolonged remission.

Introduction

Adenocarcinoma of the endometrium is the most common female genital tract malignancy in US. The American Cancer Society estimated that 34 900 new cases will be diagnosed in 1997 and 6000 women will die of this disease.[1] Although 70–80% of patients are diagnosed at an early stage of disease, the recurrence rate is as high as 33%.[2] In general, systemic hormonal or chemotherapy is used in patients with advanced disease. With the exception of the patients who have solitary vaginal recurrence, the prognosis for recurrent endometrial cancer is poor. Survival rates are 19–24% at 2 years.[3,4] Surgery or irradiation are useful in selected cases of pelvic recurrence.[5–7]

We report a case of recurrent metastatic endometrial cancer with a prolonged complete remission on paclitaxel and carboplatin.

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Case report

A 48-year-old, G_3 P_3, white female was originally diagnosed with stage II poorly differentiated adenocarcinoma of the endometrium. She was initially treated with external pelvic radiation and two intracavitory irradiation treatments followed by total abdominal hysterectomy and bilateral salpingo-oophorectomy in May of 1993. She had no adjuvant therapy. She had been doing well until January of 1995 when she developed left chest pain. Chest X-ray and CT scan of the chest showed multiple pulmonary nodules in the left lung and a left pleural effusion. The latter was aspirated and revealed an adenocarcinoma consistent with her endometrial cancer. Her CT scan of the abdomen demonstrated adenopathy of the left para-aortic lymph nodes. Bronchoscopy, gastroscopy, bone scan and mammogram done at that time were all unremarkable. She received palliative external radiation to her left chest in January of 1995. She was also given Depo Provera intramuscular injections 100–400 mg weekly from January to March of 1995. Unfortunately her disease progressed as evidenced by symptoms and imaging studies. She began to have shortness of breath which required thoracocentesis twice. Chest X-ray and CT scan of the chest demonstrated a new lesion in the right lung and increasing left pleural effusion. In March 1995, the patient was referred to the University of Texas MD Anderson Cancer Center. She was enrolled in a study of paclitaxel and carboplatin with ossirene, a myeloprotector, every 4 weeks after signing an informed consent. The dosage of paclitaxel was 135 mg/m^2 i.v. continuous infusion over 24 h on the first day. The carboplatin dosage was calculated by Calvert's formula[8] with an area-under-the-curve (AUC) of 7.5 μg·h/ml given over 1 h on the second day after

the paclitaxel infusion was completed. After three courses of treatment, in May of 1995, she had resolution of her shortness of breath. In November of 1995, after eight courses of treatment, she had complete remission as documented by chest X-ray and CT scan of the chest and abdomen. Moderate neutropenia was observed in 60% of the cycles. She experienced febrile neutropenia once, after the fifth course of treatment. Due to inadequate myeloprotection, ossirene was stopped and granulocyte colony stimulating factor approximately 5 μg/day as a s.c. injection for 10 days was started with the sixth course. The other side effects were mild nausea and vomiting, bone pain in ribs, alopecia, garlic odor during ossirene treatment and numbness of lower extremities. In January of 1996, she had received 10 courses of chemotherapy. Her Zubrod status was 0 without shortness of breath. Her physical examination, including the pelvic exam, was unremarkable. Chest X-ray and CT scan repeated at this time demonstrated no evidence of disease (Figure 1). In the light of her complete remission, a decision was made to maintain the patient on two cycles of the same dose schedule of paclitaxel and carboplatin three weeks apart every 4 months. The patient remains with no evidence of disease for 27 months in January of 1998.

Discussion

Chemotherapy is used to treat advanced or recurrent endometrial cancer when hormonal therapy fails or in the presence of rapidly progressive disease. The agents found to be effective are doxorubicin, cisplatin, carboplatin and paclitaxel. Cisplatin (50–100 mg/m^2 every 3–4 weeks) demonstrated a 20–42% overall response rates in chemotherapy naïve patients.[9–11] Carboplatin at the dose of 300–400 mg/m^2 has overall response rates of 27–33%.[12–14] Doxorubicin (50–60 mg/m^2 every 3 weeks) has resulted in overall response rates of 19–37%.[15–17] The median duration of response with these drugs is 3–6 months. Other single-agent chemotherapeutics with a response rate of at

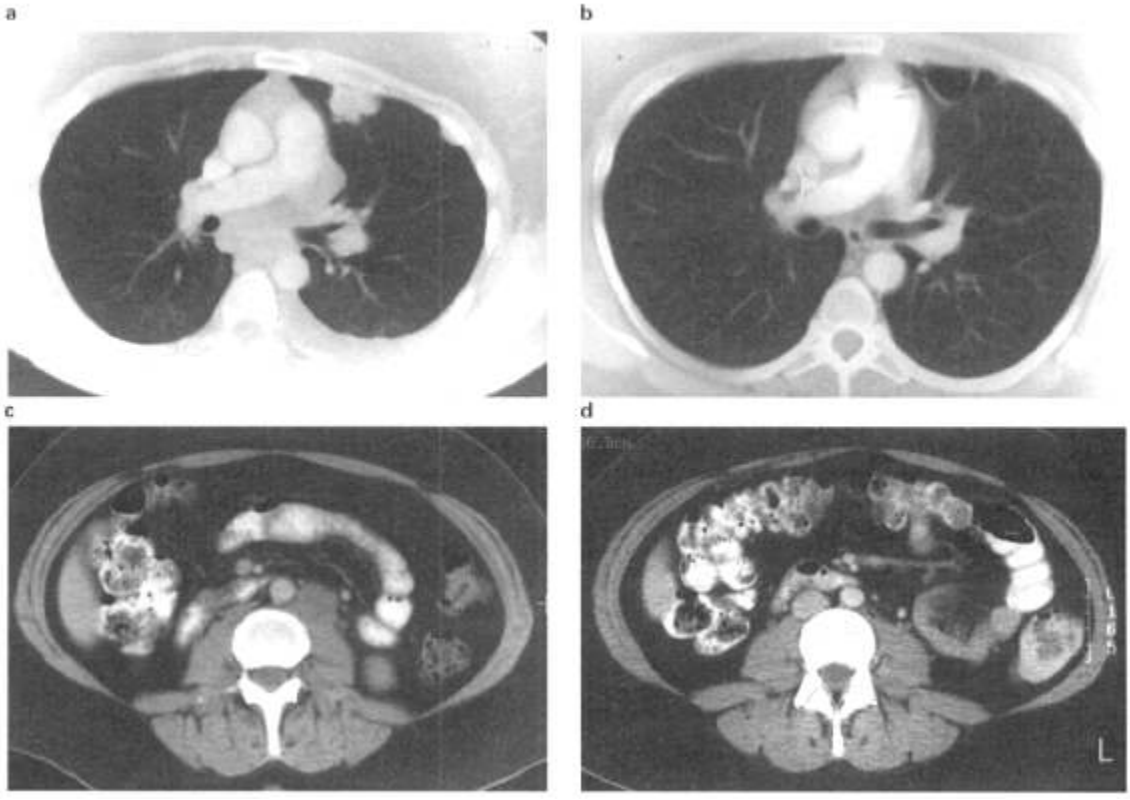

Figure 1. (a) CT of the lung and mediastinum showed mass in the left upper lobe subcarinal adenopathy and left pleural effusion. (b) Post-treatment CT of the lung and mediastinum showed complete regression of the mass in the left upper lobe and subcarinal adenopathy and complete resolution of pleural effusion. (c) Pre-treatment CT of the abdomen at the lower para-aortic level showed a 3 cm left para-aortic adenopathy. (d) Post-treatment CT at a similar level showed complete regression of the adenopathy.

least 15% are epirubicin, 5-fluorouracil, vincristine and hexamethylmelamine.[18,19] Combination chemotherapy may have a greater response rate with uncertain impact on the duration of overall survival. Paclitaxel in a phase II study performed by the Gynecologic Oncology Group (GOG) at a dose of 250 mg/m^2 infused i.v. over 24 h every 3 weeks produced a complete response in four patients (14%) and a partial response in six patients (21%) among 28 chemotherapy naïve patients with advanced or recurrent endometrial cancer.[20] Also an overall response rate of 37–43% was reported in platinum-resistant endometrial cancer.[21,22] The activity of single-agent paclitaxel and single-agent platinum in endometrial cancer and the non-cross-resistance of these agents makes the combination of these drugs of great interest for this disease.

To our knowledge this is the first report of a complete remission using the combination of paclitaxel and carboplatin in recurrent endometrial cancer. The patient tolerated this treatment well. Paclitaxel and carboplatin combination should be considered as a treatment for patients with advanced endometrial cancer and further studies are warranted.

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