Case Report

Spinal epidural metastasis in an endometrial carcinoma patient

John V. Brown III, Janet M. Stallman, Humberto Wong, Christopher M. Duma, Bram H. Goldstein

A 62-year-old (gravida 2, para 2), right-handed, Caucasian woman originally presented to our gynecologic oncology office with a stage IB, moderately differentiated, endometrial carcinoma in July 2008. The 6 cm tumor was limited to the uterine corpus, invading greater than one-half of the myometrium; there was no evidence of lymphovascular invasion. The patient subsequently underwent a robotic-assisted hysterectomy, bilateral salpingo-oophorectomy with pelvic and para-aortic lymphadenectomy and adjuvant brachytherapy.

In July 2009, the patient received a follow-up exam whereupon a vaginal lesion was noted. She then underwent an exploratory laparotomy, resection of the proximal right colon and terminal ileum, omentectomy and radical proximal vaginectomy. Final pathology revealed metastatic adenocarcinoma involving the vaginal apex, cul-de-sac nodule and hepatic flexure. The patient began chemotherapy encompassing six cycles of weekly paclitaxel (80 mg/m²) and monthly carboplatin (AUC = 6), to which she responded favorably.

In December 2010, during patient surveillance, biopsy results revealed disease progression in the left iliac chain region coinciding with a suspected right pelvic sidewall recurrence. She was treated with pelvic radiotherapy (5040 cGY); thenceforth, the patient exhibited disease remission.

The patient complained of back pain and paresthesias radiating down her legs in June 2011; an MRI of the lumbar spine revealed a 3×1 cm epidural mass in the L5/S1 region (Fig. 1). She was subsequently referred for neurosurgery consultation and underwent an L4 and L5 laminectomy with surgical resection of the epidural mass. The laminectomy was performed using a Kerrison Punch and Leksell Rongeurs (OrthoMed, Inc.; Portland, OR) to expose the thecal sac and nerve roots at the L4, L5 and S1 levels. The mass was matted at the level of L5 and attached to the nerve root. A gross total resection was accomplished although there was some minimal, residual tumor. Pathology revealed adenocarcinoma consistent with metastatic endometrial adenocarcinoma.

Two weeks later, the patient was admitted to the hospital with nausea, vomiting and abdominal pain. A follow-up CT examination revealed a small bowel obstruction that was further suggestive of progressive disease; during surgical exploration to address the obstruction, recurrent endometrial carcinoma was precluded. Nevertheless, because of the patient’s high risk status, she began radiotherapy...
(4500 cGY) to the L5–S1 region in August 2011. She tolerated the procedure without any side effects and is currently receiving follow-up from her gynecologic oncologist and radiation oncologist.

Discussion

Endometrial carcinoma is a disease that primarily affects postmenopausal women, who are 40 years or older. When metastases develop, they frequently affect the lungs and liver but very rarely involve the CNS (Cormio et al., 1996).

Previous cases have identified an endometrial cancer metastasis either in the cervical or thoracic vertebrae (Loizzi et al., 2006; Arnold et al., 2003); there is also a documented report reviewing an endometrial cancer patient who developed a sacral metastasis (Albareda et al., 2008). However, the current case report is extremely atypical insofar as the patient presented with an epidural metastasis in the lumbar sacral region; we are unaware of any comparable studies describing this condition.

The standard of care for a CNS metastasis is complete surgical resection of the disease (Spirig et al., 2011); when multiple metastases present themselves, adjuvant radiotherapy, chemotherapy and/or hormonal therapy have been employed (Loizzi et al., 2006; Giannakopoulos et al., 2006). Nevertheless, there are scant clinical data regarding symptoms, treatment and survival for a spinal epidural metastasis.

Tumor histology is potentially relevant; higher grade (≥2) endometrial tumors appear to correlate with inauspicious outcomes (Loizzi et al., 2006; Arnold et al., 2003). The endometrial cancer in the present case was a FIGO grade 2, coinciding with this clinical indication. Additional risk factors include tumor size, number of metastases, systemic therapy regimen and patient health status (Dursun et al., 2003; Wibmer et al., 2011).

Prompt detection via radiological imaging and ensuing aggressive therapy may significantly impact clinical outcome although most patients eventually succumb to disease progression (Dursun et al., 2003). Previous studies have reported a median time of approximately 26 months from the initial endometrial cancer diagnosis to the development of a CNS metastasis (Cormio et al., 1996); the time frame in the present case study was nearly 36 months.

Spinal epidural metastases associated with endometrial cancer are very rare and thus unanticipated; a noteworthy consideration is that presenting symptoms can imitate various benign diseases (Loizzi et al., 2006). Therefore, oncology physicians should remain vigilant during patient surveillance so that they can provide a timely diagnosis and expeditious treatment. Additional study of this disease with regard to symptomatology, treatment efficacy and survival rates is warranted.

Ethical consent

Consent was obtained from the patient to publish this report.

Conflict of interest statement

The authors have no conflicts of interest to declare.

References


