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Case report

Primary debulking surgery for metastatic cervical adenocarcinoma: A case report

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1. Introduction

An estimated 4100 women will die from cervical cancer in the United States in 2015, the majority having advanced primary or recurrent disease (Cervical Cancaer, n.d.). Much attention has been paid in recent years to the prevention of cervical cancer and fertility-sparing therapy. While these findings represent huge improvements in clinical outcomes, the treatment of metastatic cervical cancer remains a clinical dilemma, with limited options. Metastatic cervical cancer has long been viewed as a diagnosis for which there is no cure. The 5-year survival rates are 16% for stage IVA and 15% for stage IVB carcinoma (Chiantera et al., 2014). For advanced disease with isolated metastases, patients may be candidates for surgical resection. However, there is no evidence showing any benefit to surgery for patients with diffuse metastasis, and overall survival is poor for these patients. We report here a case of metastatic cervical adenocarcinoma treated with primary debulking surgery for presumptive ovarian carcinoma with beneficial survival outcome.

2. Case report

A 41-year-old G2P0020 woman presented with bloating, abdominal pain, and a progressive 20-lb. weight loss. A computed tomography (CT) scan demonstrated a 15 × 12 cm pelvic mass, ascites, and a moderate right pleural effusion (Fig. 1). CA-125 was greater than 2500 U/mL. She was referred to gynecologic oncology for suspicion of ovarian cancer. The patient initially underwent video-assisted thoracic surgery (VATS) to rule out intrathoracic solid tumor. Cytology was suspicious for malignancy, but there was no gross evidence of disease, and pleural biopsies were benign. At laparotomy, the patient was found to have bilateral ovarian masses measuring 12 cm on the left and 20 cm on the right, diffuse seromucinous tumor implants on the bilateral diaphragms, paracolic gutters, bladder serosa, uterine serosa, and enlarged pelvic and paraaortic nodes. Frozen section pathology of one of the ovarian masses was read as borderline serous ovarian tumor with micropapillary features. The patient underwent a total abdominal hysterectomy, bilateral salpingo-ophorectomy, omentectomy, low anterior resection of the rectum with end-to-end anastomosis, bilateral diaphragm peritonectomy, and complete gross tumor debulking. Final pathology was consistent with stage IVB, high-grade endocervical adenocarcinoma. Postoperatively, she received 6 cycles of cisplatin/paclitaxel chemotherapy. She remains without evidence of disease 30 months after surgery (Figs. 2 and 3).

3. Discussion

Treatment for stage IVA and IVB cervical carcinoma typically entails palliative chemotherapy. Treatment options include paclitaxel/cisplatin with bevacizumab, paclitaxel/cisplatin, cisplatin/gemcitabine, cisplatin/topotecan, vinorelbine, or ifosfamide (Scratchard et al., 2012; Eskander and Tewari, 2014). Gynecologic Oncology Group (GOG) trial 204—a phase 3 trial for patients with metastatic, recurrent or persistent cervical cancer—randomized patients to four cisplatin-containing doublet combinations. Progression-free survival (PFS) was 5.8 months for cisplatin/paclitaxel, 4.7 months for cisplatin/topotecan, 4.6 months for cisplatin/gemcitabine, and 4 months for cisplatin/vinorelbine (Scratchard et al., 2012; Eskander and Tewari, 2014). Overall survival (OS) was 12.9 months for cisplatin/paclitaxel, 10.3 months for cisplatin/topotecan, 10.3 months for cisplatin/gemcitabine, and 10 months for cisplatin/vinorelbine (Scratchard et al., 2012; Eskander and Tewari, 2014). More recently, GOG 240 demonstrated a 3.7-month improvement in OS with the addition of bevacizumab to cisplatin/paclitaxel or topotecan/paclitaxel chemotherapy (17 vs 13.3 months) (Tewari et al., 2014). Of note, our patient did not receive bevacizumab as she was

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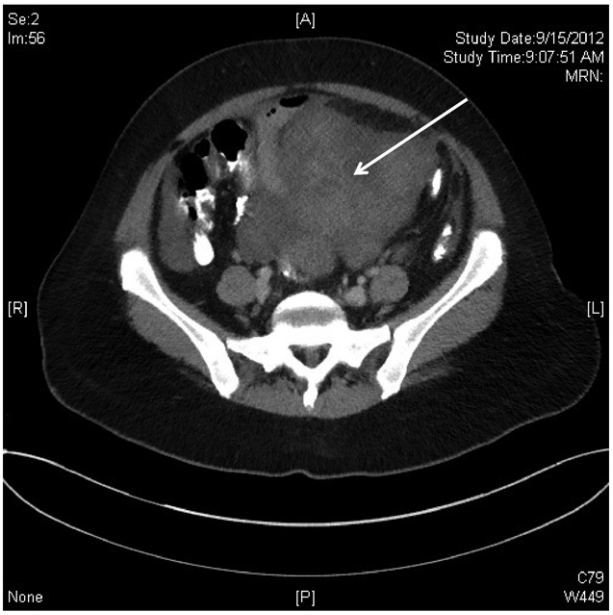

Fig. 1. Preoperative computed tomography scan showing pelvic mass (arrow).

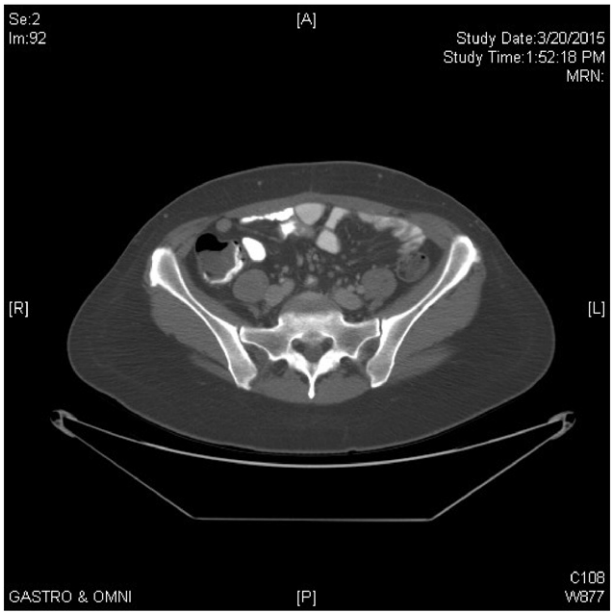

Fig. 3. Postoperative computed tomography scan at 30 months postoperatively.

treated before the results of GOG 240 were published. Prognostic factors associated with more favorable responses to platinum-based chemotherapeutic agents include higher performance status, lack of pelvic disease, lack of previous radiation, longer intervals to recurrence, and non-African American race; however, overall response rates are low (Moore et al., 2010).

Patients with diffusely metastatic disease have historically been treated with chemotherapy or palliative radiation. We could not identify any literature evaluating the surgical management of diffusely metastatic disease, and reports assessing surgery in patients with metastatic cervical cancer generally address resection of isolated recurrent disease (Friedlander et al., 2002; Long, 2007). Recurrence is typically bulky and in the pelvis. Patients with central pelvic recurrence and no evidence of other metastasis are candidates for pelvic exenteration. Most recently, 5-year survival rates of 40% have been reported for these procedures

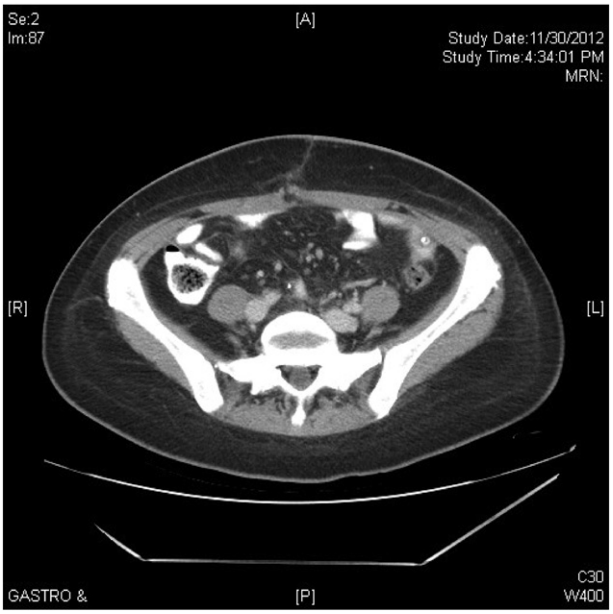

Fig. 2. Postoperative computed tomography scan at 1 month postoperatively.

(Chiantera et al., 2014; Westin et al., 2014). Isolated metastases outside the pelvis most commonly occur in pelvic or para-aortic nodes (75% and 62%, respectively), followed by lung (33% to 38%), liver (33%), peritoneum (5% to 27%), adrenal gland (14% to 16%), intestines (12%), and skin (10%) (Friedlander et al., 2002). A case series of 21 patients evaluated patients with isolated recurrence in the lungs (Lim et al., 2010). After excision of pulmonary metastasis, 16 patients were alive without disease, 3 patients were alive with disease, and 2 patients had died secondary to disease after a median follow-up of 16 months. A case series of 10 patients evaluated patients who underwent excision of an isolated recurrence in the liver (Papadia et al., 2011). Of those, 5 went on to die secondary to disease, 4 had no evidence of disease after 1 year, and 1 was alive with recurrent disease.

Our patient's preoperative clinical picture, intraoperative findings, and frozen section pathology were all consistent with ovarian cancer. We cannot estimate from our literature review how frequently a clinician will encounter a clinical scenario similar to ours in the setting of stage IVB cervical cancer. While there have been some published reports of metastatic cervical adenocarcinoma mimicking primary ovarian cancer, or synchronous endocervical and ovarian primary neoplasms (Elishaev et al., 2005; Yada-Hashimoto et al., 2003; Sun et al., 2015; Khor et al., 2009), our patient was unique as she had no preoperative symptoms, suggestion, or evidence of cervical disease. The patient underwent a primary debulking surgery for presumed ovarian cancer, with final pathology revealing metastatic cervical adenocarcinoma. Thirty months after surgery, she remains without evidence of disease, a significant improvement over both reported PFS and OS outcomes in phase 3 chemotherapeutic trials. This suggests that in cases of cervical adenocarcinoma with metastasis outside the pelvis, when all therapy is thought to be ineffective and palliative in nature, perhaps in selected cases of no bladder mucosal involvement, surgical debulking should be considered. As it is important to achieve adequate surgical resection margins, we consider that removing a significant portion of (or the entire) bladder for cases of mucosal involvement would be too aggressive in the initial treatment of this disease. We are neither suggesting this management for all stage IVB patients, nor do we believe that the primary cytoreductive approach described in this report would apply to patients with recurrent disease or those who have received prior radiotherapy. While our patient's course is highly unusual, it does pose a question about whether or not we should reevaluate the role of primary

debulking for certain patients with metastatic cervical adenocarcinoma given the improvements in chemotherapeutic efficacy in this disease.

Consent

Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Conflict of interest statement

Dr. Hyman reports personal fees from Chugai, personal fees from Santa Maria Biotherapeutics, and non-financial support from PUMA Biotherapeutics, outside the submitted work; in addition, Dr. Hyman has a patent PCT/US2014/061281 pending. The other authors have no conflicts of interest to disclose.

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