Journal of BUON **12:** 291-293, 2007

CASE REPORT

A case with three different synchronous primaries of the female genital system and their treatment

S. Kilciksiz[1], T. Gokce[2], I. Somali[3], D. Uysal[4], A. Baloglu[4], S. Yigit[5]

[1]Department of Radiation Oncology, Gaziantep University, Faculty of Medicine, Izmir; [2]Department of Radiation Oncology, [3]Department of Medical Oncology, [4]Department of Obstetrics and Gynecology, [5]Department of Pathology, Ataturk Training and Research Hospital, Izmir, Turkey

Summary

Multiple carcinomas of the genital system are rare in the literature. We report a 43-year-old female patient who presented with 3 different synchronous primary genital system malignancies (cervix, endometrium and ovary). After Wertheim's hysterectomy there was a 4×2 cm residual mass for which systemic chemotherapy and radiotherapy were administered. The patient rapidly deteriorated and died due to disease progression. Registration of cases with multiple tumors in a single centre using a standardized investigation for predisposing parameters may contribute much to the management of such conditions.

Key words: cervical cancer, chemotherapy, endometrial cancer, ovarian cancer, radiotherapy, synchronous

Introduction

Synchronous multiple carcinomas of the genital system are rare in the literature [1,2]. We report the case of a lady with 3 different synchronous primary tumors (cervix, endometrium, ovary) diagnosed by exploratory laparotomy and pathological examination. The therapeutic manipulations applied to the patient are discussed.

Case presentation

A 43-year-old female patient presented complaining of vaginal bleeding. Her personal and family history was devoid of diagnosis of a previous cancer or any chronic disease. The results of two curettage procedures were consistent with endometrial adenocarcinoma and cervical carcinoma, respectively. Gynecological examination revealed an endophytic hemorrhagic mass extending to the external os and posterior fornix. The uterus was 9.5 cm in length and mobile, while the left parametrium was infiltrated. Serum CA125 level was 661.8 U/ml (normal up to 35), hemoglobin was 9.7 mg/dl (normal 12-16).

Magnetic resonance imaging (MRI) of the pelvis confirmed the clinical findings, showing in addition solid-cyctic lesions in both ovaries (left 3 cm, right 6 cm).

The patient underwent a Wertheim's hysterectomy. Adhesions were observed at the uterovesical line due to tumor invasion.

Pathological assessment of the specimen revealed grade 2 squamous cell carcinoma of the cervix infiltrating the parametria and vaginal cuff (Figure 1), grade 2 endometrioid carcinoma of the endometrium (Figure 2), and grade 2 serous carcinoma of the right ovary (Figure 3). Deep invasion of the myometrium and thromboses in the vascular spaces were observed. Mixed-type cancerous metastases (serous carcinoma and squamous cell carcinoma metastasis; endometrioid adenocarcinoma and squamous cell carcinoma metastasis) in the external left iliac and paraaortic

Received 30-12-2006; Accepted 03-02-2007

Author and address for correspondence:

Sevil Kilciksiz, MD
Osmangazi mah. 4.sok. No:18/6
Sehitkamil
Gaziantep
Turkey
Tel: + 90 533 4706971
Fax: + 90 342 4720718
E-mail: sevilkilciksiz@gmail.com

Figure 1. Cervical squamous cell carcinoma of non-keratinizing large cell type (H&E×110).

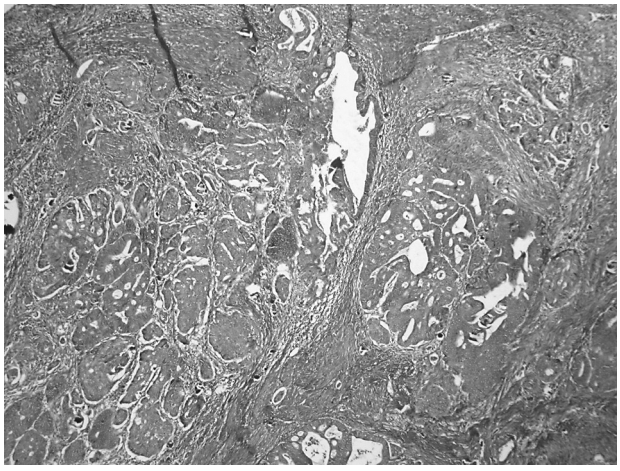

Figure 2. Endometrioid adenocarcinoma of the endometrium (H&E×110).

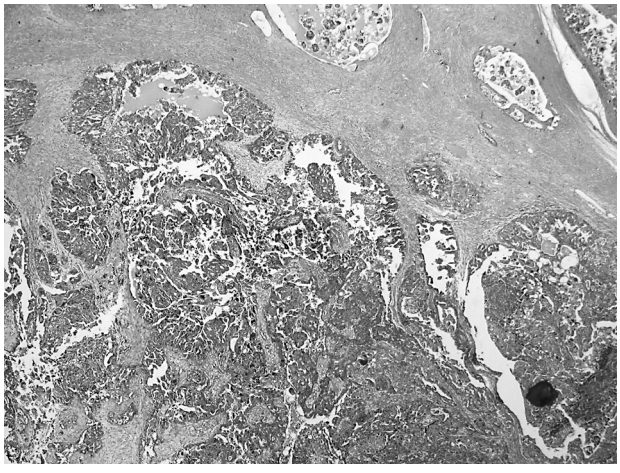

Figure 3. Ovarian serous cystadenocarcinoma (H&E×44).

lymph nodes were observed (Figure 4). Eventually, the diagnosis was stage IIIB cervical carcinoma, stage IIIC endometrial adenocarcinoma and stage IIIB ovarian carcinoma.

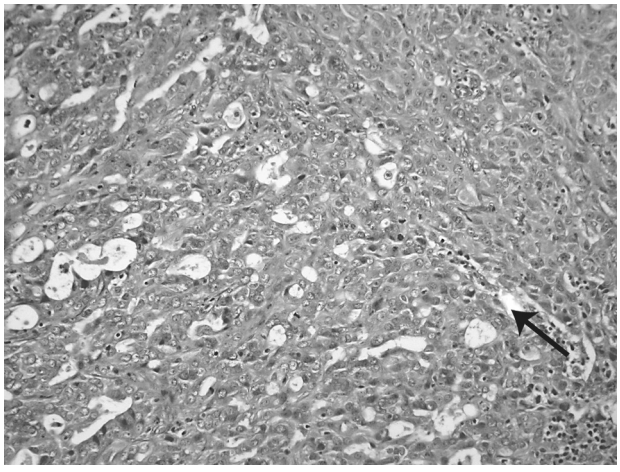

Figure 4. Metastasis of squamous cell and endometrial adenocarcinoma in a lymph node - arrow between the two tumoral components (H&E×220).

Postoperative thoracic computerized tomography (CT) was normal, however in abdominal CT there was a 4×2 cm-sized mass in close contact with the bladder.

Carboplatin (AUC 6, 350 mg/m^2, day 1) and paclitaxel (175 mg/m^2, day 1) were given every 3 weeks for 3 cycles. Regarding the residual mass, a dose of 46.8 Gy in 26 fractions was subsequently administered to the pelvic and paraaortic area through two parallel opposed fields with Co60 teletherapy machine.

Following the external radiotherapy, a thoracic CT scan was suggestive of pleural metastasis. Cisplatin and gemcitabine combination (cisplatin 80 mg/m^2, day 1 and gemcitabine 1000 mg/m^2, days 1 and 8) was given every 3 weeks for 2 cycles as second-line chemotherapy. While on chemotherapy ascites developed and liver metastasis was suspected. The patient deteriorated rapidly and died due to disease progression 4 months after the completion of radiotherapy.

Discussion

Synchronous malignancies are rare conditions, whereas more than 2 synchronous malignancies of the genital system are considered extremely rare [1-7]. Investigators have reported that the combinations of head/neck and lung cancer or esophageal cancer, and breast/breast cancer were most prevalent in both synchronous and metachronous groups [1,2,8].

Cases with 3 primary malignancies are rarely reported in case reports and literature reviews [2,9-11]. Two cases with cervical, ovarian and endometrial

cancers were reported but one of them included metachronous tumors [11,12]. Therefore, our case is perhaps the second one with 3 synchronous malignancies of different genital system sites reported recently.

The management of this kind of synchronous multiple cancer cases is controversial. Treatment should be tailored individually regarding the small number of such cases [13,14].

In the management of our case, after systemic treatment radiotherapy to the pelvic and paraaortic areas was added considering the residual mass adjacent to the bladder in relation with the importance of radiotherapy in the management of endometrial and cervical carcinoma. However, the rapid systemic progression of the disease makes paraaortic nodal radiotherapy questionable. Thus, further case discussion is needed.

Registration and studying of cases with multiple tumors using a standardized investigation for predisposing factors (impact of radio- and/or chemotherapy for a previous cancer, environmental exposure to carcinogens, patient's genetic or immunologic defects, etc) may contribute much to the comprehension and management of such conditions.

References

1. Demandante CG, Troyer DA, Miles TP. Multiple primary malignant neoplasms: case report and a comprehensive review of the literature. Am J Clin Oncol 2003; 26: 79-83.
2. Koutsopoulos AV, Dambaki KI, Datseris G, Giannikaki E, Froudarakis M, Stathopoulos E. A novel combination of multiple primary carcinomas: urinary bladder transitional cell carcinoma, prostate adenocarcinoma and small cell lung carcinoma - report of a case and review of the literature. World J Surg Oncol 2005; 3: 51.
3. Eifel P, Hendrickson M, Ross J, Ballon S, Martinez A, Kempson R. Simultaneous presentation of carcinoma involving the ovary and the uterine corpus. Cancer 1982; 50: 163-170.
4. Choo YC, Naylor B. Multiple primary neoplasms of the ovary and uterus. Int J Gynaecol Obstet 1982; 20: 327-334.
5. Zaino RJ, Unger ER, Whitney C. Synchronous carcinomas of the uterine corpus and ovary. Gynecol Oncol 1984; 19: 329-335.
6. Hemminki K, Aaltonen L, Li X . Subsequent primary malignancies after endometrial carcinoma and ovarian carcinoma. Cancer 2003; 97: 2432-2439.
7. Ayhan A, Yalcin OT, Tuncer ZS, Gurgan T, Kucukali T. Synchronous primary malignancies of the female genital tract. Eur J Obstet Gynecol Reprod Biol 1992; 45: 63-66.
8. Kaneko S, Yamaguchi N. Epidemiological analysis of site relationships of synchronous and metachronous multiple primary cancers in the National Cancer Center, Japan, 1962-1996. Jpn J Clin Oncol 1996; 29: 96-105.
9. Isin Dogan Ekici A, Kucukali T, Coskun Salman M, Ayhan A. Triple simultaneous primary gynecological malignancies in a 56-year-old patient. Int J Gynecol Cancer 2006; 16: 1947-1950.
10. Chylak V, Krusic J. Three simultaneous primary malignant tumors in the female genitalia. Jugosl Gynekol Obstet 1983; 23: 83-85 (in Croatian with Engl abstr).
11. Hrycelak H, Ferenc B, Lassota L, Gawelko J. Coexistence of three tumors in a giant tumor of the uterus. Gynekol Pol 1994; 65: 259-261 (in Polish with Engl abstr).
12. Cumming GP, Narayansingh GV, Parkin DE, Haites N. Sequential occurrence within three years in a premenopausal woman of cervical, ovarian and endometrial cancers. Postgrad Med J 2001; 77: 344-345.
13. Piura B, Glezerman M. Synchronous carcinomas of endometrium and ovary. Gynecol Oncol 1989; 33: 261-264.
14. Chen F, Shen K, Lang JH, Huang HF, Wu M. Clinical features and prognosis of double primary carcinoma of uterine corpus and the ovary. Zhonghua Yi Xue Za Zhi 2005; 85: 1257-1260.