Coexisting Endometrioid Type of Endometrial Carcinoma and Transitional Cell Carcinoma of Right Ovary Representing with Acute Abdominal Discomfort: A Case Report

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Coexisting cancers involving both endometrium and ovary in the female genital tract is a well-recognized phenomenon. However, most of them are metastatic lesions arising from one organ and simultaneous primary cancer occurring in both organs is relatively rare. We report a case with dual primary cancer occurring in both ovaries and endometrium with two different histologies. Recently, a 53-year-old woman presented with abdominopelvic discomfort and had symptoms and signs of acute abdomen was found to have Grade III T1C, Nx Mx transitional cell carcinoma of the right ovary and Grade 1, T1a, Nx Mx endometrial carcinoma of endometrioid type. We present this case with a brief review of references.

Key Words: Endometrial carcinoma, Transitional cell carcinoma of ovary, Acute abdominal discomfort

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Introduction

The etiology of synchronous malignancy is uncertain but it has been postulated that embryologically similar tissues of the female genital tract may develop synchronous neoplasms when simultaneously subjected to carcinogens.[1,2]

Ovarian carcinoma consisting solely of transitional cell carcinoma is rare. Transitional cell carcinoma, a major type of ovarian carcinoma, is characterized by urothelial differentiation and the absence of a benign, metaplastic, and/or proliferating Brenner component. Austin and Norris first classified transitional cell carcinoma of the ovary as an entity distinct from malignant Brenner tumors in 1987. Silva et al. described 88 instances of ovarian carcinoma that contained areas of transitional cell carcinoma. Although the patient's prognosis may improve when the transitional cell carcinoma component of the tumor is predominant, because transitional cell carcinoma generally responds well to chemotherapy, the clinical significance of this observation remains to be clarified.[3]

Case Report

In April, 2008 a 53-year-old woman was admitted to the Department of Obstetrics and Gynecology with abdominopelvic discomfort that persisted and got more severe for 15 days evaluated at the hospital's emergency room. It was the 13th day of her menstrual cycle. Her menstrual cycles had been irregular. Her past medical and surgical histories were relatively unremarkable and family history revealed no evidence of breast or ovarian cancer among the first-degree relatives. Bimanual pelvic examination revealed a round and cystic mass of 12 week gestation size in the pelvic cavity and revealed a table of acute abdomen with a noticable adnexial tenderness with deep palpation.

Pelvic ultrasound showed a multiseptated, 10×8×9 cm sized mass having both solid and cystic components in the the right ovary and a normal appearing right ovary and uterus. There was ascites in the pelvic cavity. Complete blood count, electrolyte, and liver function tests were within normal values.

The laparotomy was performed 2 hours after admission. Large amount of ascites was found in the pelvic cavity.The right ovary was enlarged about 10×9 cm in size and showed dense adhesions to neighbouring bowels and pouch of Douglas and there was no surface integrity but foci of necrosis. The left ovary appeared normal in shape and size. The uterus was slightly enlarged. The pelvic lymph nodes and para-aortic lymph nodes were not palpable. Total extrafascial hysterectomy, bilateral salpingo-oophorectomy, partial omentectomy, appendectomy were performed.

Macroscopically, the uterus measured 9x5x3 cm, and the endometrial cavity was expanded by a friable and congested mass at the fundus, measuring 20 mm in maximum dimension. There was no apparent invasion of the myometrium, and the

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lesion did not extend into the lower uterine cavity or cervix. Right ovary was enlarged to 8x7x7 cm. The outer surface of the tumor had papillary excrescences in three areas. On cut section, right ovary was replaced by solid mass and uni-loculated cyst filled with hemorrhagic fluid. Left ovary measured 2x1x1 cm and there was no cyst on cut section. Both the fallopian tubes appeared grossly normal.

On microscopic examination of the endometrial mass showed grade I/III endometrioid type endometrial carcinoma. There was no myometrial invasion (Figure I).

Right ovarian mass demonstrated a papillary tumor of which consisted of tightly packed, papillary structures with fine, fibrovascular cores and covered by multilayered epithelial cells. The morphology of this tumor closely resembled a high grade TCC of the urinary tract (Figure II). Immunohistochemical studies showed that the tumor was positive for cytokeratin 7 and negative for cytokeratin 20. Intraoperative abdominal washing showed no cytological clue for malignant cells.

Therefore, the final diagnosis was a Grade III, T1c, Nx Mx, high grade transitional cell carcinoma of the right ovary, and Grade I, T1a, Nx Mx, grade I/III endometrial carcinoma of endometrioid type.

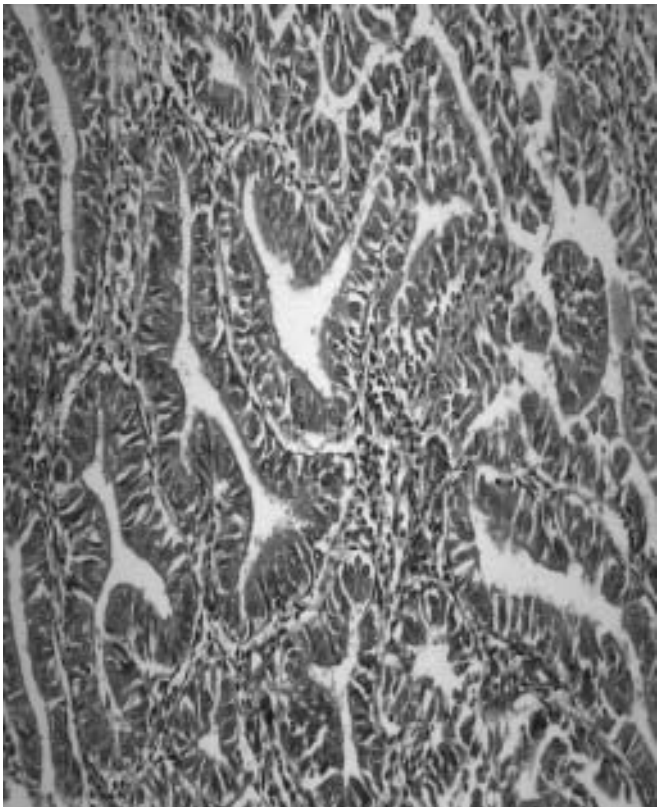


Figure I: Well differentiated endometrioid type endometrial adenocarcinoma (H&E, X20).

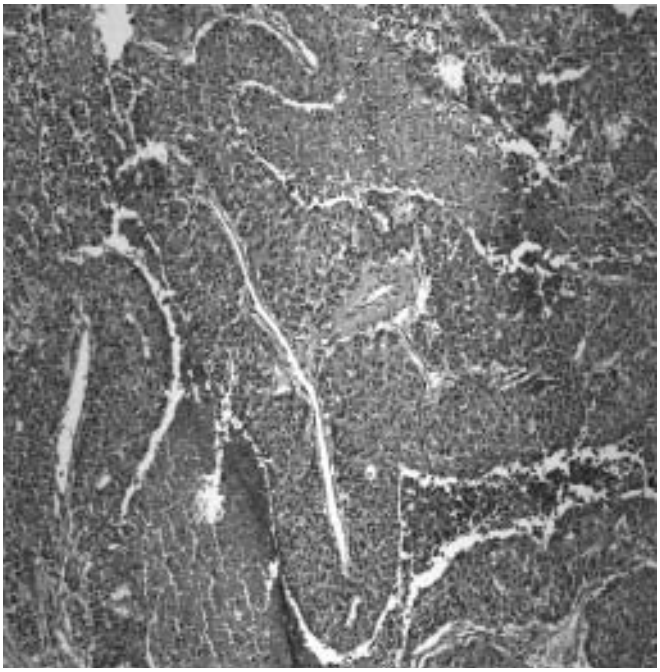


Figure II: Thick and blunt papillary folds are lined by transitional type epithelium resembling urothelium (H&E, x10).

Discussion

Synchronous cancers in the endometrium and ovary of female genital tract are mostly rare, but a well-recognized event.[4] Synchronous tumors are termed when two or more tumors occur in a patient simultaneously. The prevalence rate of occurrence of endometrial carcinoma in patients with ovarian carcinoma varies between 1,6%[8] and 67,0%, with a mean of 20%, approximately. Conversely, the prevalence rate of occurrence of ovarian carcinoma in patients with endometrial carcinoma is relatively low and ranges from 0,7% to 10%.[5]

Since the endometrium is a common site for metastases of ovarian carcinoma and vice versa, simultaneous findings of endometrial and ovarian carcinomas can be thought of as either two separate primaries or one primary tumor with metastases to another site. Most of the synchronous cancers of the endometrium and ovaries are thought to be metastatic from the primary cancer of one organ. In comparison, the prevalence of dual primary cancer in female genital cancer is relatively rare. The distinction between dual primary cancer and metastatic lesion from one primary cancer is relatively easy when histologies of the two cancers are different from one another, as in our case. However, when both tumors share the same histologic features, it may be difficult to distinguish between metastatic and independent malignancies.

While the etiology of dual primary cancer in the genital tract remains unclear, it has been postulated that the extended müllerian system, comprising the ovarian epithelium, fallopian tube, uterine corpus, and cervix, may respond as a single

morphologic unit to produce primary carcinomas in multiple sites. Patients with dual primary carcinoma tend to be 10-20 years younger than their counterparts with ovarian or endometrial carcinoma. According to several previous report, the median age of dual primary cancer ranged from 41 to 54 years.[6]

Most synchronous primary carcinomas were well differentiated endometrioid carcinoma of uterus and ovary. Some others were of either mucinous or serous differentiation in both sites. A few patients had endometrioid carcinoma of the endometrium and clear cell carcinoma of the ovary.

Compared to the single aggressive ovarian cancers that usually remain asymptomatic until they reach an advanced stage, endometrial cancer usually produces earlier symptoms, such as abnormal uterine bleeding in the early stage. In the reported series, abnormal uterine bleeding was present in 80-86% of patients. But our case admitted to the hospital due to her abdominal discomfort leading to a table of acute abdomen in her abdominal physical examination rather than abnormal uterine bleeding as a major complaint. Thus, for unreasonable factors, such a malignancy case may be mistaken as other causes of frequent causes of gynecological emergencies.

Synchronous primary cancer had a much better survival rates than a metastatic case. Also, synchronous primaries show better survival rates than single aggressive ovarian cancers. This may be due to the detection of patients at earlier clinical stage and lower graded disease state. There were no recurrences in the patients with grade 1 endometrioid tumor who were treated with surgery alone. In contrast, patients with higher graded ovarian tumors are usually treated with adjuvant irradiation or chemotherapy. In addition, the nonendometrioid or dissimilar histologic types, which often present with deep myometrial or ovarian hilar invasion may be aggressive and show poor prognosis.[7] They should be treated with adjuvant chemotherapy or irradiation after surgery.

Akut Abdominal Ağrıyla Başvuran Hastada Eş Zamanlı Görülen Endometrioid Tipte Endometrium Kanseri ve Sağ Overde Transizyonel Hücreli Kanser: Bir Vaka Takdimi

Kadın genital traktusunda birlikte oluşan hem endometrium hem de over kanserleri oldukça iyi farkedilen bir olgudur. Bunların çoğu tek bir organdan köken alan metastatik lezyonlardır ve her iki organ da kendiliğinden köken alan kanserler oldukça nadirdir. Biz iki histolojik tipte olan, hem overde hem de endometriumda gelişen bir ikili kanseri sunmaktayız. Kısa bir zaman once, akut karın ağrısı ve akut batın bulgularıyla başvuran 53 yaşındaki bir kadında sağ overde Grade III T1C, Nx Mx transizyonel hücreli kanser ve endometriumda Grade 1, T1a, Nx Mx endometrioid tipte endometrium kanseri bulduk. Bu vakayı referansların kısaca bir gözden geçirilmesiyle birlikte sunmaktayız.

Anahtar Kelimeler: Endometrial kanser, Overin transizyonel hücreli kanseri, Akut abdominal ağrı

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