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Case Report

Obstetrics and Gynaecology Section

Triple Synchronous Malignancies in Genital Tract; Primary Endometrial, Ovarian and Fallopian Tube Carcinoma: A Case Report

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ABSTRACT

Synchronous malignancies, including three or more tumours, are extremely rare. Herein, we present a case of a woman with a concurrent simultaneous endometrial, ovarian and fallopian tubal carcinoma with different histopathological characteristics. A 55-year-old postmenopausal woman with a diagnosis of endometrial adenocarcinoma by pipelle biopsy, underwent surgical staging. Final pathology result was reported as synchronous stage IA grade 2 endometrioid adenocarcinoma of the uterus, stage IA grade 2 mucinous adenocarcinoma of the right ovary and in situ serous cystadenocarcinoma of the right fallopian tube. In the postoperative period, patient followed without adjuvant therapy. To our knowledge, this a very rare case report in the literature of sychronous triple gynaecologic cancers including fallopian tube cancer and with the longest disease free survival time with over 39 months due to better prognosis than metastatic or advanced primitive diseases.

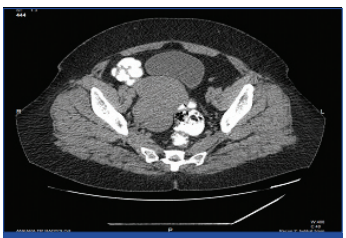
Keywords: Different primaries, Synchronous tumours, Triple cancers

CASE REPORT

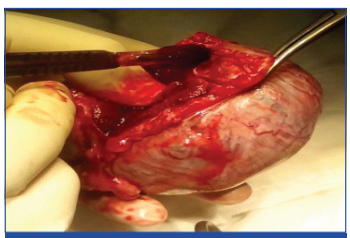
A 55-year-old, G_3P_3, postmenopausal woman was presented to her primary care provider with a complaint of postmenopausal haemorrhage. Her body mass index was 27.3 kg/m^2. Her personal and family history was unremarkable. Initial pelvic ultrasonography examination had revealed 13 mm endometrial thickness and a 45x41 mm measured adnexal mass in the right side and endometrial biopsy was planned in the primary clinic. The histopathological diagnosis of the endometrial biopsy was reported as adenocarcinoma of endometrium. After this result, patient was referred to our tertiary clinic for detailed examination and further treatment.

Her physical examination and vital findings were normal. Pelvic examination was normal and no palpable masses were noticed. Transvaginal Ultrasonogram (TVUSG) showed slight thickening of the endometrium and heterogeneous mass located in the right adnexal area (53x42 mm) containing multiple foci of calcification and thin septas. Computerized Tomography (CT) scan revealed a 57x48 mm right adnexial mass [Table/Fig-1] and neither adenopathies nor other significant findings were found in the remainder of the abdomen. Tumour markers were within the normal range (CA-125: 18.3 IU/ml).

Under a diagnosis of endometrial adenocarcinoma, debulking surgery was planned. Following peritoneal washing sampling, indeterminate right adnexal mass was visualized and unilateral salpingo-oophorectomy performed and specimen sent to frozen section examination [Table/Fig-2]. Intraoperative pathological findings resulted as mucinous adenocarcinoma of the ovary. Then, total abdominal hysterectomy, contralateral salpingo-oophorectomy, bilateral pelvic and para-aortic lymph node dissection, total omentectomy and appendectomy were performed.



[Table/Fig 1]: CT image of the right adnexal mass.



[Table/Fig 2]: Macroscopic view of the right oophorectomy specimen.

Final pathology result was reported as synchronous stage IA grade 2 endometrioid adenocarcinoma of the uterus, stage IA grade 2 mucinous adenocarcinoma of the right ovary and in situ serous cystadenocarcinoma of the right fallopian tube. Uterine corpus specimen was reported with minimal myometrial invasion and neither squamous differentiation nor lymphovascular invasion was seen. There was no tumour on the surface of the right oophorectomy specimen and also peritoneal washing sample, appendix and omental biopsies were negative. A total of 33 lymph nodes were evaluated and all were reported as negative. All of the three tumours were accepted as different primaries due to final pathologic evaluation.

In the postoperative period, patient was discharged and referred to the medical oncology council and they did not suggest any adjuvant therapy. In the follow up stage, CT scans and gynaecologic exams showed no evidence of disease and routine mammographies excluded breast diseases.

DISCUSSION

Synchronous malignancies in female genital tract are rare. Previous authors have reported synchronous malignancy incidence among gynaecologic neoplasms between 0.8% and 1.7% [1,2]. The most common malignancies in genital tract that coexist together are ovary and endometrium. A 5% of the endometrial carcinomas and 10% of the ovarian cancers are concurrent with each other [3]. The aetiology of this coexistence is still unclear, but, it has been postulated that tissues of a common embryologic origin may develop synchronous neoplasms when simultaneously exposed to certain carcinogens [4,5].

Surgical staging is the fundamental of treatment of the patients with synchronous malignancies. It must be proved whether a primary or a metastatic tumour with the pathological examination criteria described by Ulbright T and Roth L at the first place [6]. According to these, the tumours must have different histopathology or fulfill all the minor criteria. The minor criteria are: all the tumours must be restricted, no distant metastasis, no connection between the tumours, no lenfovascular tumour embolus and no myometrial invasion. In this case, a surgical staging was performed and eventually the diagnosis was synchronous malignancy due to the different histopathology of all the tumours.

Reference	Age	Anatomic Site	Tumour histology	Outcome follow-up
Saglam A et al., [13]	63	Salpinx Ovary Endometrium Cervix	Papillary Adenoca. Mucinous Adenoca. Adenoca. Endocervical Adenoca.	NED 12 months
Atasever M et al., [14]	50	Salpinx Ovary Endometrium Cervix	Microinvasive carcinoma in situ Papillary Serous Adenoca. Intraepithelial Adenoca. Endocervical carcinoma in situ	DOD 29 months
Kambi DP et al., [15]	55	Salpinx Ovary Cervix	Papillary Cystadenoca. Papillary Cystadenoca. Adenosquamous carcinoma	N/A
Gutierrez-Palomino L et al., [16]	49	Salpinx Ovary Endometrium	Endometrioid Adenoca. Endometrioid Adenoca. Adenoca.	Adjuvant therapy, survival N/A
Present study	55	Salpinx Ovary Endometrium	Serous Cystadenoca. in situ Mucinous Adenoca. Adenoca	DFS 39 months

[Table/Fig-3]: Features of multiple synchronous gynaecologic malignancies including fallopian tubal carcinoma reports in the literature [13-16].
Adenoca.: adenocarcinoma, DOD: died of disease, NED: no evidence of disease DFS: disease free

Patients with synchronous malignancies have a better outcome than the patients who have metastatic diseases in the same organs [7,8]. Owing to early detection, opportunity in combination with endometrial carcinomas have better survival rates than the patients with malignancies of ovaries [9]. In this case, postmenopausal haemorrhage complaint of the patient generated a chance to early diagnosis. Because of this fact, severe invasion and metastasis risk excluded and no postoperative therapy suggested for the patient. There was no recurrence observed after 39 months from operation.

There is no high-quality evidence that any specific post-treatment surveillance strategy is associated with improved outcomes for synchronous tumours in genital tract. In the absence of data, we agree with the consensus-based guidelines from the United States National Comprehensive Cancer Network (NCCN) for both ovarian and endometrial cancers [10,11]. According to these guidelines, follow up visits (including history, general physical and pelvic examinations) were performed every three months up to five years after surgery. Despite there is no clear impact of serial Ca-125 measurements on overall survival, tumour marker measurements were taken every three months.

Primary fallopian tube carcinomas are rare malignancies of the genital tract and the incidence was reported 0.41 in 100000 women [12]. There are reported four cases with multiple coexisting malignancies include fallopian tube carcinomas in the literature and this case is the fifth one to our knowledge. The characteristics of the all five cases are given in [Table/Fig-3] [13-16].

Genetic transition must be considered in synchronous malignancies. Especially women with mutation of the *BRCA-1* and *BRCA-2* have improved risk for malignancies of fallopian tubes and ovaries [17]. Lynch syndrome is other condition has to be taken into account because of the risk for the ovarian malignancy development due to the mutation of the mismatch-repair genes [18]. Synchronous tumours are associated with these genetic mutations.

CONCLUSION

Triple synchronous malignancies in genital tract are extremely rare and distinct from the most of the previous cases, one of the primaries are originated from fallopian tubes, the different histopathology of all the tumours and 39 months of disease free survival in the follow up period is the value of this case report.

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