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Case Report

Synchronous ovarian, endometrial and cervical cancer—case report

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Background: MPMs are generally divided into 2-categories. The most common is endometrial and ovarian cancer but the coexistence is still unclear. *Case*: A 49-year old patient was admitted because of ovarian tumor extending from the right ovary an ascites. Immunohistochemistry reactions showed synchronous cancer: cervical (IIA1/T2a1), endometrial (IIIA/T3a) and ovarian (IIIB/T3b). *Conclusion*: Synchronous malignancies of female genital tract are very rare clinical situation. They account for about of 0.8–1.7% of malignancies. In relation to prognosis multiple synchronous cancers have a better outcome than metastatic disease of the same organs and the prognosis is limited to the tumor with the worst prognosis.

Keywords

Ovarian cancer; Endometrial cancer; Breast cancer

1. Introduction

Since the first report of Billroth and the definition of Warren and Gates the incidence of multiple cancers had progressively increased over time. MPMs are generally divided into 2 categories: metachronous, when tumors follow one another regardless a fixed period of time and synchronous, when tumors arise simultaneously or within 6 months from the primary malignant tumor [1]. Synchronous malignancies of female genital tract including three or more tumours are very rare. The tumours must have different histology or all the tumours must be restricted without distant metastasis and no connection between the tumours. The most common is endometrial and ovarian cancer but the coexistence is still unclear. The typical histology of synchronous endometrial and ovarian cancers is endometrioid adenocarcinoma which accounts for about 70% of cases [2–4].

2. Clinical case

A 49-year old patient after two cesarean sections was admitted to Gynecological and Obstetrics Hospital, Operative Gynecology Division because of ovarian tumor extending from the right ovary an ascites. Transvaginal ultrasound showed: normal uterus (63 × 47 mm), 13 mm endometrium thickness and 91 × 54 × 55 mm multicystic tumour with ascites in pelvic cavity. CA-125 level was 1263 U/mL. Surgical treatment revealed right ovarian tumour and total abdominal hysterectomy with omentectomy was performed. Final histopatological examination was: adenocarcinoma G2 of the cervix, corporis uteri et ovarii utriusque without any connection between tumors. Immunohistochemistry reactions showed synchronous cancer: cervical (IIA1/T2a1), endometrial (IIIA/T3a) and ovarian (IIIB/T3b). Patient started adjuvant chemotherapy.

3. Discussion

Synchronous malignancies of female genital tract are very rare clinical situation. They account for about of 0.8–1.7% of malignancies. In the literature only few studies have described three different invasive gynecological cancers identified simultaneously in the same patient. In a Surveillance, Epidemiology and End Results Program database analysis of 56986 women with ovarian cancer Williams *et al.* [5] identified 1709 (3%) cases of synchronous endometrial and ovarian cancer with 70% cases of adenocarcinoma histology.

The treatment strategy of synchronous cancers located in genital tract usually follows National Comprehensive Cancer Network (NCCN) Guidelines [6]. In relation to prognosis multiple synchronous cancers have a better outcome than metastatic disease of the same organs and the prognosis is limited to the tumour with the worst prognosis [5].

Author contributions

EGM—content supervision, preparation of the final version of the work. SR—content consultation, preparation of the original version of the work. SN—literature analysis, primary editing. BB—preparation of the final version of the work, collecting the work. SS—content consultation, content quality supervision, data analysis. All authors read and approved the final manuscript.

Ethics approval and consent to participate

A subjects gave her informed consent for inclusion in the study.

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Conflict of interest

The authors declare no conflict of interest.

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