Synchronous Severe dysplasia and Endometrial Adenocacinoma in Uterus
A rare case report and literature review

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Introduction

• Patients with synchronous cervical high grade squamous intraepithelial lesion (HSIL) and endometrial cancer is a very rare condition.

• Adenocarcinoma: NOS, mucinous, endometrioid, clear cell, mesonephric, early microinvasive, and adenocarcinoma in situ.

• SCC: More than 90% of uterine tumorous lesions are squamous cell carcinoma and its precursor lesions.

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- The precursor lesions of the squamous cell carcinoma had traditionally been called dysplasia.

- Mild dysplasia (CIN1)
- Moderate dysplasia (CIN2)
- Severe dysplasia (CIN3)
- Carcinoma in situ (CIN3)

*Diagnostic, W Gray; Grace T McKee, 2003 second edition*
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• coexistence of adenocarcinoma and CIN 3 is very rare
• Brown et al.: only 1 case of adenocarcinoma was found in 105 cases of CIN 3
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Case report

A 78 years old woman

Subjective:
- right flank pain
- difficulty in urination 5 days
- bilateral edema of the legs
- history of diabetes mellitus with regular follow up and medical control for 15 years
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Objective:

Clinical examination revealed the following results:

- WBC, \(12.6 \times 10^3/uL\);
- RBC, \(3.18 \times 10^6/uL\);
- Hb, 9.2 mg/dL;
- PLT, 198 \(\times 10^3/uL\);
- CEA, 1.99 ng/mL;
- CA-125, 77.8 U/mL

Other levels within normal limits.

In physical exam:

- A huge cystic mass that proved to be a large hematocervix was bulging in the vagina.
- Right inguinal LNs was found.
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On transvaginal sonography:
A irregular cervical and endometrial lesion.

Pap smear:
A Pap smear was performed, the cytology smear revealed suspicious other malignant neoplasm

Cervical biopsy and endometrial sampling (7 days):
An endocervical high grade squamous intraepithelial lesion (HSIL) and endometrial adenocarcinoma (EMEA).

LN biopsy (11 days) - revealed Metastatic adenocarcinoma.
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• The patient underwent hysterectomy.
• The pathologic findings were synchronous in the uterus with endometrium clear cell adenocarcinoma and severe dysplasia of the cervix.
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Fig. A, B: Papanicolaou smear showing a cohesive group of malignant glandular endometrial cells shed from adenocarcinoma.
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Fig. C, D: Endometrial clear cell adenocarcinoma. In this field, tumor cells form solid sheets. Prominent distally placed nuclei create a hobnail appearance. (H.E stained)
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Papanicolaou smear.

Fig. E, F: Severe cervical dysplasia.
Showing irregular shapes and sizes, enlarged blue nuclei are indicative of abnormal cell division occurring throughout the dysplastic cells.
Cervical biopsy.
Fig. G: Severe dysplasia that spans more than 2/3 of the epithelium, and may involve the full thickness. (H.E stained)
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Discussion

- The EMEA (gland) and CIN (squamous) showed different immunoprofile
- **CA125** is mainly expressed in adenocarcinoma element rather than CIN
- **PR** was strongly positive for EMEA but negative in CIN
- **CK 19** was present in EMEA but was absent in CIN
- **p63** presence in CIN but not in EMEA

http://www.pathologyoutlines.com/
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- Clear Cell Carcinoma of Endometrium is a rare subtype of endometrial cancer. (1-5% of all endometrial cancers)
- The majority of these cancer cases are detected and diagnosed in women aged 50 years and older.
- Based on the grade and degree of aggressiveness, Clear Cell Carcinoma of Endometrium is mostly categorized as a high-grade tumor.
- In many cases, these tumors are diagnosed in their later stages (advanced cancer stage)

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What are the Risk Factors for Clear Cell Carcinoma of Endometrium? 1/2

- **Menstrual cycle**: $< 12\text{y} ; > 55\text{y}$
- **Polycystic ovarian syndrome (PCOS)**: hormones are out of balance
- **Family history**: colon cancer, genetic disorders = an autosomal dominant manner.
- **Poor dietary choices**: foods high in animal fat
- **smoking**
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What are the Risk Factors for Clear Cell Carcinoma of Endometrium? 2/2

- **Tamoxifen therapy**: breast cancer far outweigh the risk; endometrial cancer development
- **Estrogen therapy**: for a long time duration
- **Radiation therapy**: pelvis for other cancers
- **OTHERS**: hypertension; history of breast cancer and ovarian cancer; contraceptives; intrauterine contraceptive devices (IUDs)
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- Synchronous genital tract neoplasms cause **more clinical problems** than a single neoplasm.
- Neoplastic involvement of the **uterine body** and **cervix** treatment options are quite different.
- Synchronous primary lesions are usually identified at **early stages** with a **good prognosis**.

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• Cases of simultaneous endometrioid denocarcinoima and CIN3 are extremely rare. Therefore, the present case of coexistence of EMEA and CIN3 appears extremely rare.
• Clear Cell Carcinoma of Endometrium has a poorer prognosis compared to endometrioid adenocarcinomas.
• The patient was treated with a combination of multiple drug therapy and high-dose chemotherapy, but the patient died 10 months after her initial presentation at our hospital.
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Thanks for your attention