

# Endometrial carcinoma presenting as hematometra: Clinicopathological study of a rare case and literature review

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## Summary

A case of a postmenopausal woman who was investigated for a large cystic peritoneal tumor which turned out to be hematometra is presented. From her clinical history, a wide excision of the uterine cervix was reported due to a high-grade intraepithelial squamous neoplasia. Laparotomy showed a greatly enlarged uterus and the histological exam revealed a hematometra with a superficial endometrioid adenocarcinoma of the uterine cavity. The remaining cervix had extensive fibrosis and complete obliteration of the cervical canal. A review of the literature revealed that hematometra in postmenopausal women should be investigated because it may harbor a cancer.

*Key words:* Adenocarcinoma; Uterine cancer; Hematometra.

## Introduction

In this study, we present a rare case of endometrial carcinoma with an unusual clinical presentation in a 70-year-old, multiparous, postmenopausal woman, who came to the Outpatient Department of the Gynecological Clinic complaining of long-standing abdominal pain. Both the physical examination and ultrasound imaging showed a large pelvic cyst, consistent with hematometra.

It is important to note that large pelvic masses found during physical examination may have various origins and may demonstrate a great variety of clinical characteristics. Their origin may be mesenteric, peritoneal, lymphatic, or they may originate from the bladder and the connective tissue of the pelvis. Rarely they may present as fluid collections within the uterus. Analysis of the fluid may demonstrate blood (hematometra), serous fluid (hydrometra) or puss (pyometra).

Hematometra may result as a complication of cone excision of the cervix or hysteroscopic ablation of the endometrium.

## Case Report

A 70-year-old, multiparous, postmenopausal woman with a personal gynecological history of four abortions, came to the Gynecology Clinic complaining of pelvic pain of eight months' duration. During physical examination the uterus was enlarged while the cervix was closed. Vaginal and cervical cytological smears were normal. The adnexa were within normal limits.

The ultrasound (US) control showed a large single-spaced pelvic mass 18.4 x 8.3 cm, with thin walls and without any echogenic elements (Figure 1). Computed tomography (CT) demonstrated an enlarged uterus and a thickened endometrium.

In detail US examination showed a large cystic mass (18.4 x 8.3 cm) in the lower pelvis behind the bladder. The mass showed intense thickening of the wall in places and thin echogenic amorphous sludge. Due to its great size it was not possible to define the organ of origin by US. CT of the upper and lower abdomen was recommended. The CT scan demonstrated a large mass of similar intensity to the surrounding tissues in the area of the uterus. The mass also showed cystic and solid elements which intensified after administration of contrast medium (Figures 2 and 3). The mass extended to the lower pelvis. No enlarged paraortic lymph nodes were found.

Serum tumor markers showed elevated CA-125 (182 U/ml), CEA [3.2 ng/ml (4TE 3 ng/ml; normal < 35 U/ml)], CA-19.9: 0.6 U/ml (normal < 37 U/ml).

Investigative laparotomy was performed which revealed a greatly enlarged uterus. Lavage of the peritoneum was negative for neoplastic cells. Frozen section biopsy was positive for malignancy and showed endometrial carcinoma.

Total abdominal hysterectomy was performed and the patient's postsurgical condition was good.

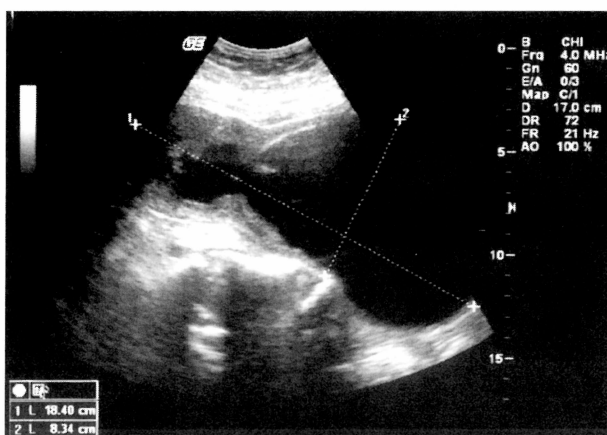
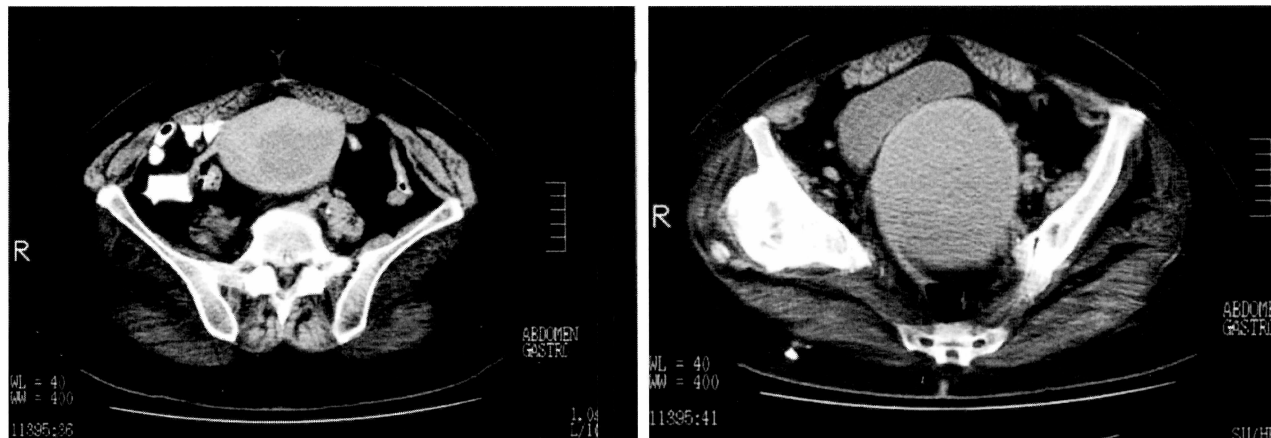


Figure 1. — Image of a pelvic mass (18.4 x 8.3 cm).

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Figures 2, 3. — CT scan of the lower abdomen. A large mass displacing the bladder is apparent.

Histological examination revealed a greatly enlarged uterine body measuring 16 x 10 x 7 cm and a cervix 3.5 cm in length.

The uterine cavity was cystically dilated measuring 13 cm in the greatest diameter and was filled with blood (hematometra). The endometrial mucosa was thickened up to 0.7 cm and was infiltrated by a well differentiated endometrioid adenocarcinoma that extended superficially to the myometrium and infiltrated less than one-third of the myometrial thickness.

Histological sections of the cervix showed extensive fibrosis with complete obliteration of the cervical canal. The excised lymph nodes were negative for metastatic disease.

The tumor was defined as Stage Ib (FIGO) and no further treatment was recommended. The patient is well two years after the surgery and under systematic follow-up, periodical control with CT and measuring of serum markers.

## Discussion

Late diagnosis of endometrial masses in older aged women occurs mainly due to lack of major symptoms such as vaginal bleeding, metrorrhagia, or pelvic pain [1].

Fluid collection in the intrauterine cavity may denote endometrial carcinoma, but the level of correlation differs among the few published surveys, due to the rarity of the condition. In postmenopausal women hematometra is usually created by the natural narrowness of the cervix caused by postmenopausal atrophy, chronic cervicitis or by a neoplasia of the cervix, uterus or vagina. In our case hematometra was caused by fibrosis and obstruction of the cervical canal due to atrophic changes and concomitant inflammation.

Wu *et al.* emphasize the value of transvaginal sonography in distinguishing adenocarcinoma in a hematometra [3]. In our case the CT scan provided information about the location of the pelvic mass, excluding other cystic lesions of ovarian, enteric or peritoneal origin but neither CT or US diagnosed carcinoma.

Carlson *et al.* presented five benign tumors (2 ovarian, 1 tubal, 1 endometrial and 1 located in the cervix) in 20 postmenopausal women with the presenting symptom of intrauterine fluid collection [4].

The Breckenridge study showed that a great percentage of symptomatic postmenopausal women with pelvic pain, vaginal bleeding or pelvic tumor had cancer of the uterus or the cervix [5]. Ultrasound control has shown that thickened endometrium and fluid collection in the intrauterine cavity correlates with a higher risk of endometrial carcinoma [6].

## Conclusion

The occurrence of an irregular or bloody vaginal excretion is the most common symptom of endometrial cancer. The presence of intrauterine fluid collection, with or without abdominal pain, in postmenopausal women should raise the suspicion of endometrial carcinoma.

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