A Case of Asymptomatic Postmenopausal Hematometra Mimicking Endometrial Carcinoma

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Hematometra in a postmenopausal woman is a rare condition and the possible association of endometrial and cervical carcinoma should be excluded for such cases. We report the case of a 66-year-old multiparous postmenopausal woman who presented as an asymptomatical hematometra mimicking endometrial carcinoma. In this case, hematometra was demonstrated by sonography and well defined by computed tomography and MRI and suggested the possible diagnosis of endometrial cancer. Endometrial sampling revealed only the diagnosis of blood clots and scanty endometrial strands. A total hysterectomy with bilateral salpingo-oophorectomy were done. Pathologic evaluation excluded the diagnosis of endometrial carcinoma and revealed senile cervical stenosis possibly due to hypoestrogenic state. The successful management of this rare condition was discussed.
(Gynecol Obstet Reprod Med 2007;13:1 67-69)

Key Words: Endometrial carcinoma; Hematometra; Postmenopausal women; Senile cervical stenosis

Hematometra in a postmenopausal woman is rare condition and generally associated with cervical stenosis from senile atrophy, radiotherapy, or a neoplastic lesion involving lower uterine cavity (endometrium, myometrium) or cervix.[1] Although the most frequent symptoms of endometrial carcinoma are bleeding and vaginal discharge and when hematometra or pyometra is present the patient may feel pain, the possible association of endometrial and cervical carcinoma for such postmenopausal women with hematometra was reported.[2,3] A large incidentally found hematometra in a postmenopausal patient poses a diagnosis dilemma.

In this report, a case of large asymptomatical hematometra diagnosed during routine follow-up in a postmenopausal woman was reported, and the management of this rare condition was briefly discussed.

Case report

A 66-year-old woman, gravida 6, para 6 admitted to our clinic for routine gynecologic examination. Her obstetric history was unremarkable. She had the history of diabetes and hypertension for five years and there was no history of a bleeding disorder. She had been menopausal since the age of 49 and had never used hormone replacement therapy. She had no previous episode of postmenopausal bleeding. Physical examination revealed no additional abnormalities. Pelvic examination revealed a regular, mobile uterus of 12 weeks' size with an obliterated cervical canal. Biochemical tests including renal and liver functions and tumor markers (CA-19.9, CA 15.3, CEA) were within the normal ranges except for an minimal elevation of serum CA 125 (59.31 U/ml (0-35)) level.

Suprapubic and transvaginal ultrasound confirmed the finding of an 18 x16 x 14 cm mass containing heterogeneous echogenic material, presumably a blood clot in uterine cavity, and normal postmenopausal ovaries. There was no ascites. Following ultrasonography, abdominal and pelvic CT, MRI were performed to better delineate hematometra and for staging purpose of possible diagnosis of endometrial carcinoma (Figure 1-3). The uterus was found to be enlarged with thickened walls and filled with heterogeneous fluid (hematometra) and the diagnosis of cervical stenosis was confirmed by pelvic CT and MRI.

Figure 1. CT scan reveals an enlarged uterus with thickened walls and hematometra in which heterogeneous appearance is present (sagittal view).

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Submitted for Publication: 05.12.2006
Accepted for Publication: 11.12.2006

Figure 2. CT scan reveals an enlarged uterus with thickened walls and hematometra in which heterogeneous appearance is present (axial view).

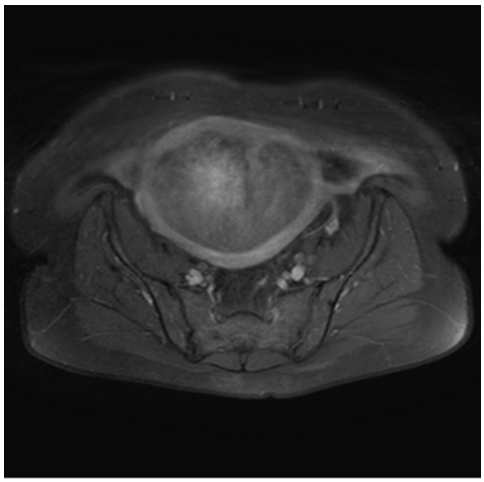

Figure 3. After contrast administration, axial T2- weighted MR image shows an enlarged uterus with thickened walls and hematometra in which heterogeneous appearance is present (axial view).

Pap smear revealed no evidence of intraepithelial neoplasia or cancer. Endocervical curettage was done. At dilatation and curettage (D&C), she was found to have an irregular cavity. Although sharp curettage was performed, endometrial biopsy specimen showed only blood clots and scanty endometrial strands but these were insufficient for comment. Because of the patient's medical history and insufficient pathologic report, the woman was offered to choose either hysteroscopy guided endometrial sampling or total abdominal hysterectomy and bilateral salphingo-oophorectomy (TAH+BSO). The woman elected TAH + BSO. The patient referred for further evaluation and hysterectomy since she had systemic diseases.

At tertiary center, TAH + BSO was performed. Pathologic evaluation revealed no findings of endometrial carcinoma with the diagnosis of cervical stenosis and hematometra. The uterus, the fallopian tubes, ovaries, and surrounding structures were free of tumor. On 5th hospital day she was discharged from the hospital without any postoperative complication. Postoperative control on 6th week was unremarkable.

Discussion

Fluid containing masses within the endometrial cavity may arise from an imbalance in fluid production and drainage from the uterus; such masses can contain blood (hematometra), water (hydrometra), or pus (pyometra).[4] Hematometra can be caused by complications resulting from cone biopsy and hysteroscopic transcervical endometrial ablation after which the cervical canal can become obliterated with subsequent hematocervix and hematometra. In young women, hematometra may be due to congenital anomalies.[5,6]

In postmenopausal women, hematometra is generally associated with cervical stenosis arising from aging, previous infection, radiotherapy, or a neoplastic lesion involving the cervix or lower uterine cavity.[2] In our case, the endometrium undoubtedly was not completely ablated after radiotherapy, and the hematometra probably developed from endometrial proliferation with fibrosis and obliteration of the cervical canal.

Stenosis is caused by contraction of scar tissue in the cervix or agglutination of raw surfaces within the endocervical canal. Stenosis may follow cauterization, conization operations, radium application, or develop congenitally or spontaneously in hypoestrogenic women. A stenotic cervix impedes menstrual flow and access to the endocervical canal and endometrial cavity for diagnostic and therapeutic procedures and hematometra can develop. Postmenopausal cervical stenosis may completely close the endocervix so that secretions and cellular debris from the atrophic endometrial cavity cannot escape and accumulate in the body of the uterus. The hematometra will usually result in pain, and may cause nausea and/or vomiting. A hematometra may become infected and form a pyometra. Pyometra may also occur with endometrial or cervical cancer if the tumor obliterates the endocervical canal.[1,7] In our case, although clinical features of women such as history of hypertension and diabetes, obesity, high CA 125 levels, heterogeneous mass in uterine cavity demonstrated by sonography and pelvic tomography suggested the possible diagnosis of endometrial carcinoma, difficulty in cervical dilation procedure, and pelvic computed tomography findings and pathologic findings of hysterectomy specimen suggested the diagnosis of senile cervical stenosis possibly resulting from hypoestrogenic state.

Transabdominal sonography is useful in the diagnosis of hematometra but may not provide information as to its cause. However transvaginal sonography detects the neoplastic lesions responsible for the hematometra. For the evaluation of

patient with postmenopausal hematometra the first step should be transvaginal sonography, it is important in the evaluation of hematometra because it affords clear visualization of the endometrial cavity.[8] We also performed transabdominal and then transvaginal sonography for the confirmation of the diagnosis of hematometra. In patients with large hematometra and for the evaluation of adjacent structures and organs for possible endometrial carcinoma spread, pelvic computed tomography and MRI may give more reliable information.

When a hematometra is present in postmenopausal women, an endocervical curettage should be done as soon as the curette can be introduced. An endometrial curettage should be done. If present, pyometra should be cultured and antibiotics administered according to culture and sensitivity results. Unless future fertility is a concern, the cervical canal is dilated to the largest diameter possible.[5,7] Further management of postmenopausal hematometra is based upon treatment of the underlying condition. If undetermined cause of bleeding was obtained following extensive diagnostic approach including hysteroscopy guided biopsy, hysterectomy for diagnostic and therapeutic aims may me a choice of therapy.[1]

In conclusion, the presence of hematometra in postmenopausal women should prompt assessment of the endometrium and cervix. Moreover, in women with clinical and laboratory features suggesting endometrial carcinoma, uterine carcinoma should be considered unless proven otherwise and transvaginal sonography should be used to visualize the endometrium and cervix, pelvic CT and MRI may be used for further evaluation, and endometrial sampling and endocervical curettage should be performed for exact diagnosis even in asymptomatic postmenopausal hematometra case.

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