

Acute onset of hematometra associated with endometritis and cervical stenosis. A case report

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Summary

The possible cause of hematometra is incomplete cervical stenosis which inhibits the passage of blood due to acute endometritis.

Key words: Endometritis; Hematometra; Magnetic resonance imaging; Submucosal uterine leiomyoma.

Introduction

Hematometra occurring in postmenopausal women has been reported to be associated with cervical stenosis caused by infection, cervical and endometrial carcinoma, radiation for cervical cancer [1] and laser conization of the cervix [2]. To the best of our knowledge, there have been no reports indicating a link between the development of hematometra and bleeding from endometritis in the current English literature.

We describe an unusual case of hematometra that developed acutely in an elderly woman with a submucosal uterine leiomyoma.

Case Report

An 83-year-old woman with a submucosal uterine leiomyoma presented with abnormal uterine bleeding and acute lower abdominal pain in March 2001. Pelvic examination revealed a moderate amount of bleeding from the cervical os and an enlarged uterus extending to 3.5 cm above the pubic bone. Abdominal examination revealed the uterus with mild tenderness on palpation without rebound. Transvaginal ultrasound demonstrated a hypoechoic uterine leiomyoma, a dilated endometrial cavity with hyperechoic fluid collection and smooth endometrial lining. Cytology of the cervix and endometrium showed no atypical cells, and endometrial histology indicated acute endometritis with mild infiltration of neutrophils. Cultures of the vaginal discharge yielded no bacilli or fungi.

Sagittal magnetic resonance imaging (MRI) showed a submucosal uterine leiomyoma measuring 8x7 cm in diameter, displaying low signal intensity (SI) on the T1-weighted images (Figure 1), and predominantly low SI and areas with high SI on the T2-weighted images (Figure 2). The endometrial cavity was irregularly dilated. The caudal parts of the intrauterine contents demonstrated intermediate SI with marginally high SI both on the T1- and T2-weighted images, while the cephalic parts displayed low SI on the T1-weighted images and bright SI on the T2-weighted images. Stenosis in the upper part of the cervical canal was clearly delineated on the T2-weighted images. The patient was diagnosed as having hematometra composed of subacute hemorrhage in the caudal parts and acute hemorrhage in the cephalic parts.

Six days later, the uterine fundus was elevated up to 6 cm above the pubic bone. Laboratory data on admission showed a normal full blood count and CRP within normal limits. Bleeding time, prothrombin time, partial thromboplastin time, fibrinogen and FDP were normal. Abnormal uterine bleeding persisted despite the administration of hemostatics, thus a total abdominal hysterectomy and bilateral salpingo-oophorectomy were performed. On the cut surface, the endometrial cavity was filled with approximately 400 ml of coagulated blood. Hemorrhage from the endometrium overlying a submucosal leiomyoma was found, whereas no hemorrhage or necrosis was noted within the leiomyoma. Histological examination of the endometrium overlying the leiomyoma revealed acute endometritis with numerous infiltrations of neutrophils. The postoperative course was uneventful and she was discharged on day 14 postsurgery.

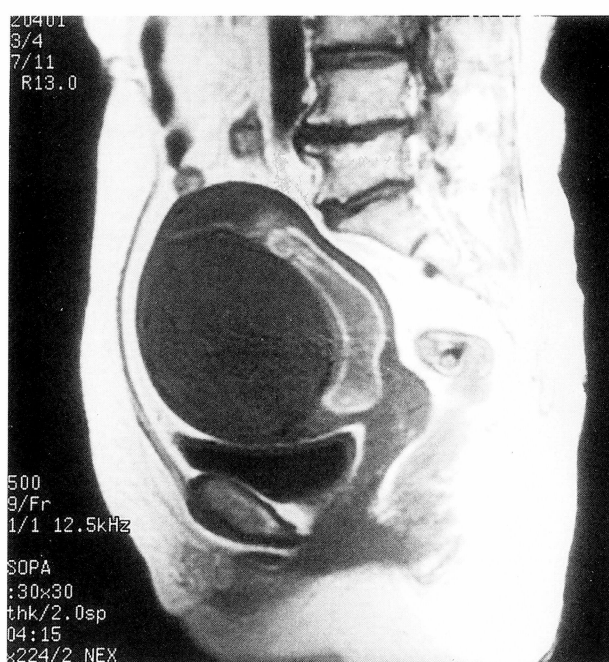


Figure 1. — Sagittal T1-weighted MRI showing a submucosal uterine leiomyoma and hematometra.



Figure 2. — Sagittal T2-weighted MRI clearly demonstrating incomplete stenosis in the upper part of the cervical canal.

Discussion

The present case illustrated acute onset of hematometra in an elderly woman with a submucosal leiomyoma.

Abnormal uterine bleeding in postmenopausal women should be considered the result of cervical or endometrial carcinoma thus making it indispensable to determine the cause of the hematometra by cytological and histological examinations.

Ultrasound is also important in the evaluation of hematometra as an initial examination. Scheerer and Bartolucci [3] reported the usefulness of transvaginal sono-

graphy in the detection of the neoplastic lesions responsible for the hematometra. In that patient, however, no neoplastic lesions were visualized on the endometrial lining by transvaginal ultrasound. On the other hand, MRI clearly demonstrated hematometra and identified the incompletely obstructed cervical canal. In the present case, the cause of abnormal uterine bleeding was considered acute endometritis. The presence of a submucosal uterine leiomyoma may have promoted the bleeding from acute endometritis by the distension of endometrium and thus stenosis of the cervical canal caused the retention of excessive blood, thereby leading to the formation of hematometra.

In conclusion, postmenopausal uterine bleeding concomitant with a progressive increase in uterine size may indicate the development of hematometra. MRI is useful in making a correct diagnosis of hematometra and demonstrating the obstructed cervical canal, especially on T2-weighted images.

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