

# Hematocervix as an Uncommon Complication of Cesarean Delivery: A Case Report

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## ABSTRACT

Hematometra is a condition of retained blood or clot in the uterus. If just the cervix is affected by collection, the condition is described as hematocervix. The hematocervix should be suspected in a women with amenorrhea and recurrent lower abdominal pain. The objective of this case report was to report a rare case of isolated hematocervix following cesarean delivery.

A 27-years-old primigravidae woman was admitted with the complaints of severe pelvic pain and amenorrhea. She had the history of full term delivery via cesarean section because of prolonged latent phase of labor almost 3 months ago. Pelvic examination, transvaginal sonography and MRI findings were confirmed the diagnosis of hematocervix cervical dilatation and curettage following vaginal misoprostol was done and the women was discharged with good health status.

The increased rates of cesarean delivery in all over the world caused increase in rare complication such as isolated hematocervix. Dilatation and drainage of cervical collection is safe and effective treatment in such cases.

**Keywords:** Cesarean delivery, Dilatation, Hematocervix

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## Introduction

Hematometra is a condition of retained blood or clot in the uterus. The causes of hematometra resulting from partial or complete obstruction of lower genital tract may be congenital or acquired (1). The commonest congenital causes are imperforate hymen and transverse vaginal septum. The acquired causes are senile atrophy of endocervical canal, scarring of the isthmus by synechiae, radiation and endocervical malignancy or due to surgical procedures. If just the cervix is affected by collection, the condition is described of hematocervix (1-2).

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## Case Report

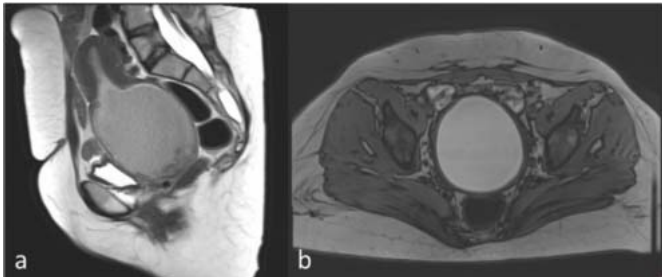
A 27-years-old primigravidae woman was admitted with the complaints of severe pelvic pain and amenorrhea. She had the history of full term delivery via cesarean section because of prolonged latent phase of labor almost 3 months ago. Previous cesarean delivery operative report confirmed the finger aimed cervical dilatation procedure during cesarean delivery. Pelvic examination revealed a semi-mobile almost 10 cm cervical mass. On vaginal examination, the cervix and vagina were normal and brownish vaginal discharge was present. Closed external cervical ostium was also noted. Abdominal examination revealed tenderness in the lower abdomen without any palpable mass.

An abdominal ultrasound examination showed enlarged cervix with full of fluid, the fluid collection had mixed echogenicity without septations and pelvic MRI showed a markedly distended endocervix measuring 84x118 mm filled with a homogenous fluid of without septations (hematocervix) (Figure 1). On physical examination she was hemodynamically stable but was pale in appearance. Her pulse was 82 per minute and regular, blood pressure 100/80 mm Hg, and temperature 36.5 Celsius degree. Respiratory and cardiovascular systems were normal.

Laboratory investigations showed as hemoglobin 10g/dL (normal limits range, 12-14), WBC count 10.300/mm<sup>3</sup> (normal limits range, 6.000-10.000), blood group A+, non-reactive HIV and HbsAg and negative blood pregnancy test.

Treatment was started with intravenous fluids and antibiotics infusion. Initially, 400 µg vaginal misoprostol (Cytotec, 200 µg, Ali Raif Ilac, Istanbul, Turkey) was administered. Two hours later, cervical dilatation and ultrasound-guided suction curettage was done under general anesthesia. Following preparation of surgical site with antiseptic solution and bladder catheter insertion, filmy adhesions around the external ostium area were broken, drainage of the hematocervix and removal of retained blood clots was done with suction curettage. Control transvaginal ultrasound confirmed the normal uterine cervical cavities following operation.

Patient inform consent was obtained for this case report.



**Figure 1:** On sagittal T2-weighted (a) and axial T1-weighted (b) magnetic resonance image 8x12 cm in size, hyperintense, smooth contour hematoma in cervix was reported. Appearance is compatible with hematocervix.

## Discussion

Hematometra and/or hematocervix should be suspected in a women with a history of cesarean section with the complaints of amenorrhea and cyclic pain. It is conditioned by anatomical obstruction of the exit way of menstrual bleeding, that can release the presentation forms described as hematocolpos, hematometra and hematosalpinx. Hematometra can be diagnosed with the visualization of pockets of echogenic fluid in the uterine cavity on transvaginal ultrasound (2).

Our exhaustive literature review was failed to reveal and isolated hematocervix case following cesarean delivery. It is unclear why a hematocervix developed in this instance of cervical stenosis instead of the more common hematometra. Hematometra associated risks factors were placenta praevia, placenta accreta, percreta, chorioamionitis with prolonged rupture of membranes, multiple caesarean sections or a scarred uterus, postpartum endometritis, intra uterine fibroids or polyps and previous cervical surgery. The main reasons may be external cervical ostium stenosis or long cervical canal (3).

Various treatment strategies have been used in the management of hematocervix. One of these cases was successfully

treated with a simple dilation procedure (3-4). In one case drain was placed for 6 days followed by insertion of a copper intrauterine device to prevent re-stenosis. We did not place intrauterine device but using a device to maintain the patency of the cervical canal after drainage decreases the rate of hysterectomy after simple dilation procedures (5). In our case, medical and surgical treatment options were combined. Medical treatment allowed softening of cervix and made the surgical dilatation and drainage easier.

Based on current literature findings, the routine manual or instrumental cervical dilatation during before closing the uterus is unnecessary in both laboring and non-laboring women. Controlled studies have reported that this practice does not improve postoperative short or long term morbidities and complications. Both procedures had the same affects (6).

The increased rates of cesarean delivery in all over the world caused increase in rare complication such as isolated hematocervix. Transvaginal sonography is most useful diagnostic to in the evaluation of such rare complication. Drainage of uterine and cervical collection is safe and effective treatment in these cases.

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