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A rare case of hematometra secondary to cervical stenosis following laparoscopic myomectomy: A case report

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ABSTRACT

Background: Hematometra is a uterine blood collection that is pathological. It's a rare disorder caused by a congenital or acquired structural blockage of the cervical canal. Acquired cervical stenosis may be caused by surgical operations performed on the uterus or cervix. Amenorrhea or dysmenorrhea, as well as pelvic pain or irritation, urinary frequency and retention, all are prevalent signs of this illness in premenopausal women. We present a case of hematometra caused by laparoscopic myomectomy done for cervical and posterior wall fibroid. *Case description*: A 39 years old female with para two, live two with previous two lower segment caesarean section and laparoscopic myomectomy done 3 years back, presented with chief complaints of abdominal pain (on and off) since 3 years which increased since 3-4 days and burning micturition since one week associated with vulval itching since 3-4 days. Investigations like CECT and MRI were done which revealed residual uterus with irregular defect in posterior myometrium, narrowing of cervico-vaginal canal. Using transvaginal sonography a needle with guide wire was introduced through the cervix into the uterine cavity, about 30cc of hematometra was drained. *Conclusion:* The rare likelihood of hematometra should be examined in any woman who presents with acute abdominal discomfort, especially if the pain is related to uterus and cervix surgical procedures.

Keywords: Hematometra, Abdominal pain, previous surgical procedures, narrowing of cervico-vaginal canal.

1. INTRODUCTION

Hematometra is the accumulation of menstrual blood within the uterine cavity as a result of an obstructed outflow, usually caused by a congenital condition. But now in the present period, there is an increase in the incidence of postsurgical hematometra following caesarean section, postabortal procedures, post endometrial ablation and post myomectomy procedures (Pitts et al., 2008). Some of the complications of untreated hematometra include pyometra, pelvic inflammatory disease, peritonitis, endometriosis,

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hematosalpinx (Wali et al., 2015). We present a case of hematometra which developed post laparoscopic myomectomy. This case study is discussed because of its rarity, as well as to emphasise the importance of proper training for health professionals in order to reduce post-operative complications and thereby morbidity and mortality.

2. CASE DESCRIPTION

39 years old female with para two, two live issues with previous two lower segment caesarean sections presented in outpatient department with chief complaints of abdominal pain since 3 years which had increased since past 3-4 days. The pain was a dull aching on and off pain and was relieved by taking oral analgesics. Burning micturition had been present for one week and was accompanied by vulval itching for three to four days. There was a history of laparoscopic myomectomy done three years back for cervical fibroid and posterior wall intramural fibroid. There was history of spotting per vaginum, which lasted for a 1-2 days, on interval of 28- 30 days. It was associated with intense pain in abdomen during cycles.

On examination, patient vitals were stable with pulse rate: 82/bpm regular, RR: 20/min. blood pressure: 110/70mmhg in right arm. Per abdomen examination revealed a vertical scar of caesarean section along with 3 small laparoscopic scars, on palpation abdomen was soft with lower abdomen tenderness present, and no guarding or rigidity. On per speculum examination, cervix was taken up and cervical os was pin point, with excessive white discharge present. On per vaginal examination, uterus was bulky, irregular and fixed. Contrast enhanced computerised tomography (Figure 1) and Magnetic resonance imaging (Figure 2) revealed residual uterus with irregular defect in posterior myometrium, narrowing of cervico-vaginal canal, postoperative stoma

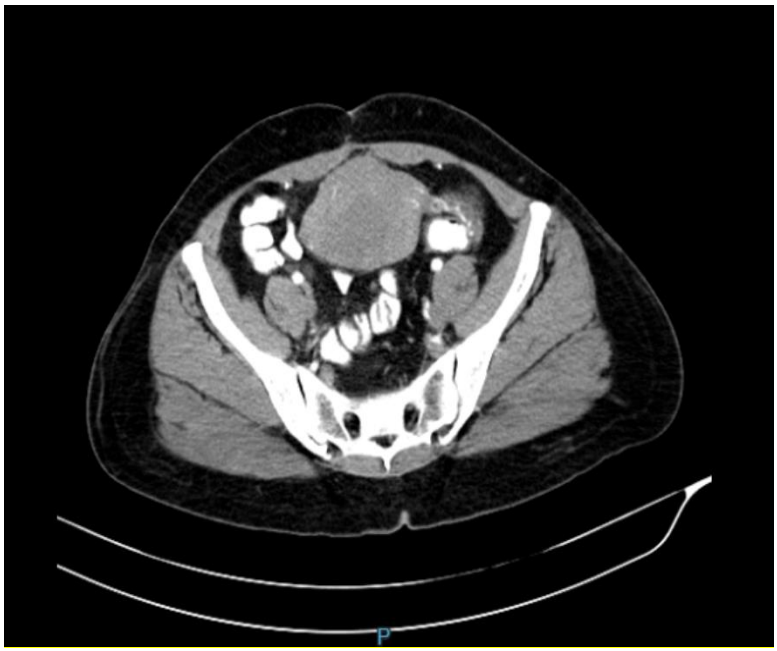

Figure 1 contranst enhanced computerised tomography showing hematometra

All of the above findings were suggestive of hematometra (Figure 3) accumulation following narrowing of cervicovaginal canal as a result of postoperative complication following laparoscopic myomectomy. So Patient was taken for drainage of hematometra. An initial examination under anaesthesia was done which revealed a pin point cervix. Using transvaginal sonography, a needle with guide wire was introduced through the cervix into the uterine cavity, about 30cc of hematometra was drained (Figure 4), cervical dilatation was done upto 4mm with difficulty (Figure 5).

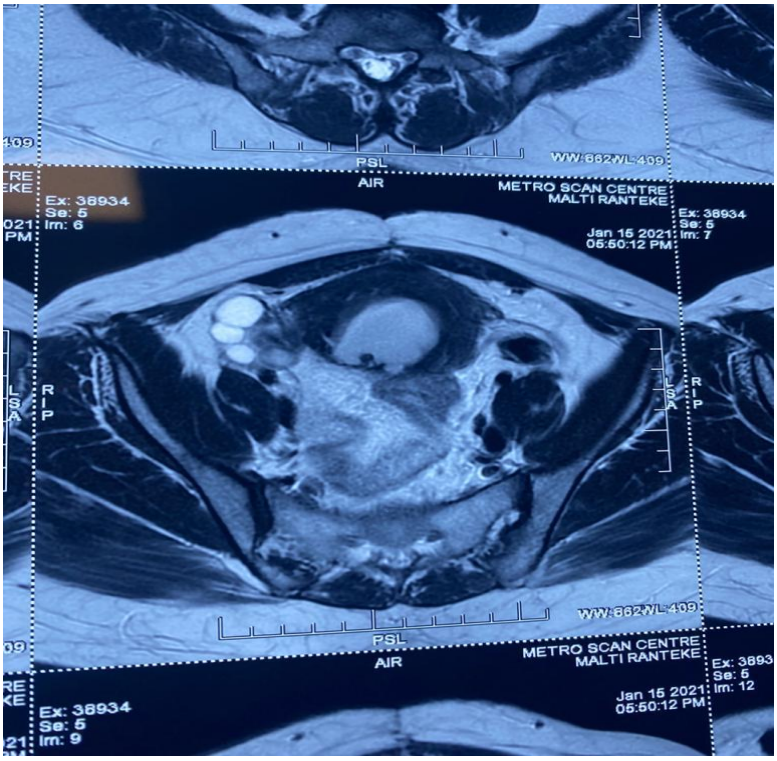

Figure 2 magnectic resonance imaging showing hematometra

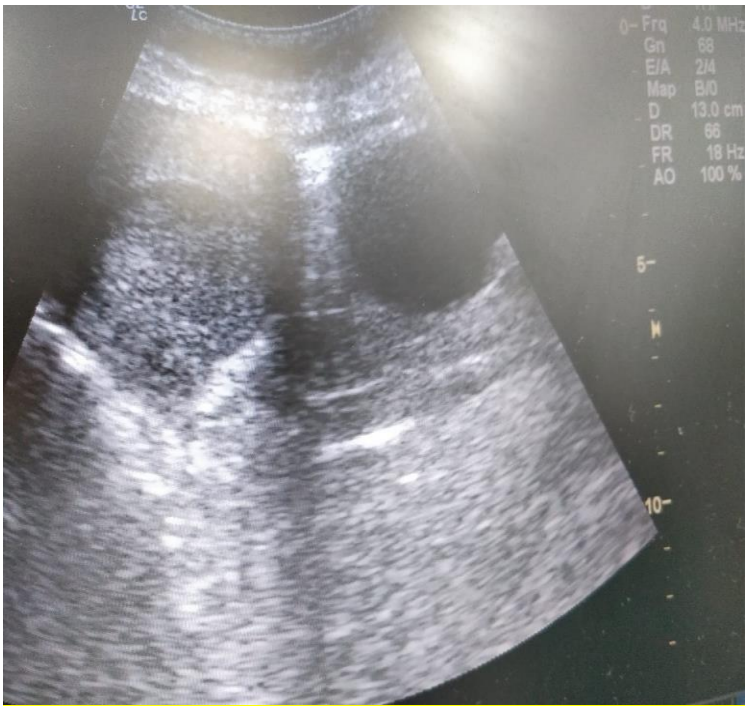

Figure 3 transvaginal sonography showing hematometra

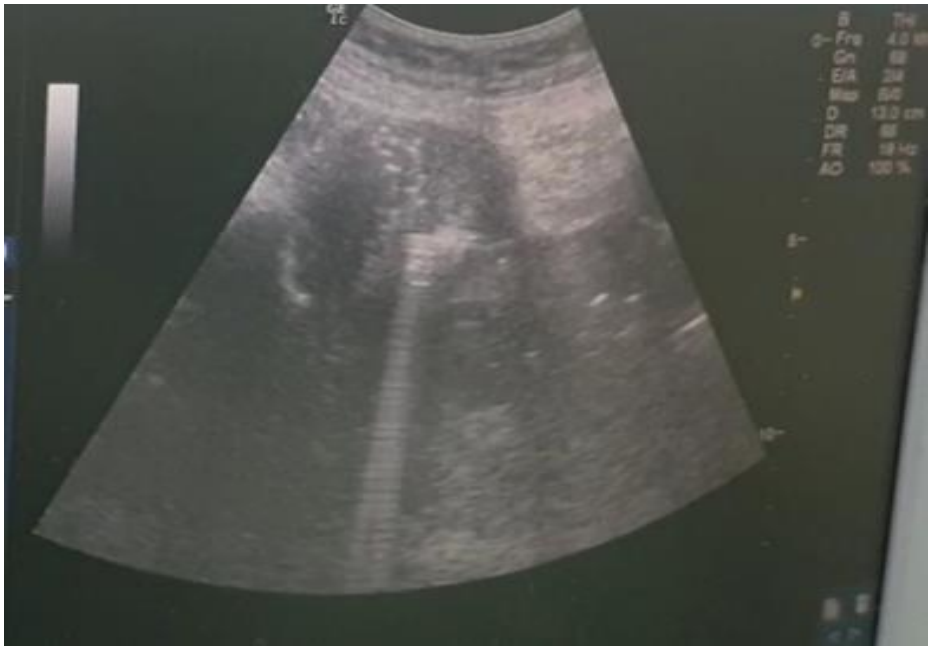

Figure 4 transvaginal sonography showing drainage of hematometra

Figure 5 transvaginal sonography after drainage of hematometra

3. DISCUSSION

Hematometra is a medical disorder in which the uterus collects or retains blood. Imperforate hymen, which can induce primary hematometra at menarche, is treated with hymenectomy. Primary hematometra produced by an imperforate cervix has also been described in postmenopausal girls with didelphys uterus (Klimek et al., 2012). Hematometra may also be acquired as a difficulty of endometrial ablation or as a result of cervical stenosis caused by uterine and cervix surgical procedures such as Loop electrosurgical excision procedure (LEEP) and conisation of cervix prior to cervical radiation therapy (Nayak et al., 2010). Ablation of the cervico-uterine junction is common in some cases, most likely due to poor surgical technique. Cervical stenosis may occur as a late complication of extensive resection or trauma to the cervical os, and presentation will vary depending on degree of obstruction (Kaur et al., 2014).

Cervical stenosis is characterised by chronic pelvic pain or pressure, spotting during menses, dysmenorrhea, amenorrhea, infertility, and endometriosis. As described throughout this case, our patient developed hematometra as a result of postoperative cervical stenosis. Two major diagnostic paradigms that can be used to diagnose hematometra are Contrast enhanced computerised tomography (CECT) and Magnetic resonance imaging (MRI). CECT and MRI abdomen and pelvis revealed there is residual uterus

with irregular defects in posterior myometrium and narrowing of cervico-vaginal canal, postoperative stoma. Cervical stenosis may also be diagnosed by failing to pass a 2.5 mm Hegar dilator into the cervical os. Per vaginal examination revealed a uterus was bulky, irregular and fixed and pin point cervical os.

Hematometra is normally treated by dilatation of the cervix, which allows the blood to drain. Normal dilatation can be traumatic when dealing with a stenotic cervix, necessitating the use of lacrimal duct dilators or a series of small Hegar dilators. When combined with sonography, cervical dilation reduces the chance of uterine perforation and allows for fast healing if it occurs. Transvaginal sonography was used to manage our patient. A needle with a guide wire was inserted via the vagina into the uterine cavity, and roughly 30cc of hematometra was drained. The high rate of post-procedural recurrence is utmost difficult parts of healing to address. In an effort to solve this issue, some surgeons have suggested utilising catheters, pessaries, and stents to preserve cervical patency.

4. CONCLUSION

Follow up on patients following a surgical operation is the doctor's ethical obligation to detect any negative consequences. A rare chance of hematometra should be explored and ruled out in any woman presenting with acute or chronic abdominal discomfort, particularly if the pain is related to cervix and uterus surgical procedures. Such complicated cases are uncommon, and early clinical and radiological diagnosis of hematometra is important in order to avoid complications such as pyometra, PID, hematosalpinx, endometritis, peritonitis and endometriosis. In our case, we detected the hematometra by contrast enhanced computerised tomography and magnetic resonance imaging and clinical examination, we treated the hematometra with transvaginal sonography, which involved inserting a needle with a guide wire via the vaginal canal into the uterine cavity, draining the hematometra, and preventing complications such as pyometra, PID, hematosalpinx, endometritis, peritonitis and endometriosis.

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Author's Contribution

All the authors contributed equally to the case report

Informed consent

Informed consent was obtained from the patient

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Conflicts of interest

The authors declare that there are no conflicts of interests.

Data and materials availability

All data associated with this study are present in the paper.

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