



IATROGENIC COMPLICATIONS OF SURGICAL ABORTIONS IN FIRST TRIMESTER IN COVID-19 PANDEMIC

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KEYWORDS :

INTRODUCTION

Dilatation and evacuation is a very common obstetric procedure practiced almost on a daily basis in all hospitals. Complications associated with it are several, including bleeding, perforation, infection, adhesions. The overall perforation rate for first trimester abortions is around 0.8–1.3 per 1,000 according to different authors.^{1,2} However, the incidence varies due to underreporting as underqualified practitioners still carry on abortions at unauthorized centres resulting in such complications. Some inadvertent complications also might occur at tertiary care centres which are managed immediately under direct vision. COVID 19 pandemic had created limitation of resources and travel for the common, causing patients to undergo procedures at the nearest available centres, irrespective of authorization of such procedures at those centres and thereby resulting in complications. Here we present a series of three cases of uterine perforation occurring as complication of dilatation and evacuation, two of which were carried out in private centres which had further resulted in bowel injury or broad ligament hematoma.

Case Series 1

A 35years G4P2L2A1 attended our emergency department with complain of pain abdomen for 2 days , spotting per vaginum for 1 day with severe anaemia with pulmonary edema in shock . She had history of amenorrhoea for 3 months and MTP pill intake 15 days ago, twice taken under medical supervision and twice herself with no documented history of dilatation and evacuation. At presentation, she was uncooperative, dehydrated with cold clammy extremities with severe pallor. Her PR-170/min, BP-70/50 mm Hg, spo2 on NRBM was 84%. She was resuscitated but did not respond and was started on Noradrenaline infusion and intubated in emergency room itself. She had tense, tender abdomen with guarding and ultrasound guided paracentesis revealed hemoperitoneum. Per vaginally, her os was closed without any bleeding. Ultrasound also showed a suspicion of defect at fundus of uterus and gross free fluid in abdomen and hence patient was taken up for exploratory laparotomy after initial resuscitation. Pre-operatively, her hemoglobin was 6.8g/dl and platelet count was 76,000/cu mm. Her liver function test and kidney function test were normal and INR was 2.5. Her intra-operative findings revealed around 1 cm rent noted in fundus towards right side of uterus, which was repaired with 2-0 vicryl. Ileal tear of 4X4 cm was noted about 4 ½ feet from duodeno-jejunal flexure, which had resulted in faecal contamination. Around 6 cm bowel was resected and end to end anastomosis was done with 2-0 vicryl and 2-0 silk, as depicted in Fig 1. 2 litres of blood mixed with pus in abdomen was noted for which 3 litres of saline wash was given and intraabdominal drain was placed. No injury was noted in vagina, cervix and fornices. 2units of packed cell and 1 unit of FFP was transfused and she was put on maximum inotropic support intraoperatively. Patient could not be extubated i/v/o hemodynamic instability and massive blood loss. In ICU, patient had refractory hypotension and went into cardiac arrest but inspite of repeated resuscitative efforts she could not be revived.



Fig 1. End to end anastomosis of bowel after resection of bowel perforation

Case Series 2

A 30 year old G2P1L1, having 3 months amenorrhea was referred to our emergency with c/o excess bleeding per vaginum with severe anemia after undergoing dilatation and curettage at another hospital. At presentation, she was hemodynamically stable and maintaining 98% spo2 on room air. Per abdomen her uterus was 12 weeks size, and vagina was filled with clots. Ultrasound done at emergency revealed presence of products of conception in the uterus with possibility of rent on posterior surface of uterus. Pre-operative hemoglobin was 6g/dl and platelet count was 98,000/cu mm. Uterine perforation was felt through right lateral wall of uterus after positioning patient in lithotomy position under spinal anaesthesia. She was taken up for exploratory laparotomy under general anaesthesia in which a large 15cmx10cmx10cm hematoma was noted between the folds of right broad ligament extending superiorly upto the dome of bladder and inferiorly upto the level of internal os, as depicted in Fig 2. Broad ligament hematoma was drained along with bilateral ligation of internal iliac artery. A 4cm rent was noted in posterolateral wall of uterus on right side which was ligated with 2-0 vicryl. Patient was extubated and shifted to HDU where she was transfused 2 unit packed cell and 3 unit FFP. She was discharged after 10 days after proper antibiotic and hematinic coverage.



Fig 2. Broad ligament hematoma noted after uterine perforation

Case Series 3

A 35 year old G4P3L3 with severe anemia in shock presented to the emergency department of Safdarjung hospital with signs and symptoms of incomplete abortion. There was history of bleeding per vaginum with passage of fleshy mass and clots for the past two days. On examination, the urine pregnancy test was positive, general condition of the patient was fair, pulse rate was 103/min, blood pressure was 74/50 mmhg, respiratory rate was 24/min, SpO2 was 80% on room air and 99% on oxygen by mask, heart and lung examination was normal. Shock index was 1.39 and the qSOFA score was 2.

Abdominal examination was within normal limits. Local examination did not reveal any active bleeding. Per vaginal examination showed uterus of around 12 week size, cervix firm and anterior, cervical os was open with products of conception being felt in the cervical canal. Bilateral fornices were free and non tender. Ultrasonography revealed uterus as bulky with evidence of mixed echogenic contents measuring 5.9x 2.6x 3.2 cm in the uterine cavity. Bilateral adenexa was normal with no free fluid in the cul de sac. On shifting to OT, reports were followed, hemoglobin was 2.3 gm%, total leukocyte count was 5000/cumm, platelet count was 2.8 lac. Coagulation profile was-15/24.3/1.30.

liver function test- 1.1(0.3)/10/6/74, renal function test- 14/0.4, serum electrolytes- 132/3/8. Dilatation and evacuation was done in lithotomy

position. After evacuation, prolapse of omentum and visceral tissue was noted. Immediately the decision for laparotomy was taken. Serosal tear of ileum around 0.5cmx0.5cm noted, as depicted in Fig 3, which was repaired with 2-0 vicryl. Left sided fallopian tube was found avulsed in mid portion for which salpingectomy was done. Right sided fallopian tube was noted infected and beaded for which salpingectomy was done. She received 3 units packed cell, 2 units platelets and 4 units of fresh frozen plasma during her hospital stay. She was managed postoperatively with proper antibiotic coverage and was discharged after 7 days.



Fig 3. Serosal tear noted of ileum noted after dilatation and evacuation

DISCUSSION

Uterine perforations are a known common complication of dilatation and evacuation. It is usually diagnosed by suspicion of instrument passing more than the length of uterocervical canal, or presence of abdominal pain or severe vaginal bleeding during or after the procedure. Rarely, prolapse of abdominal contents through the vagina occurs which is a direct indication of uterine perforation. However, According to Mittal and Misra, unrecognized perforations are rather common, and the true incidence of uterine perforations is underestimated without direct pelvic visualization.³ Ultrasound is often the initial diagnostic modality to be used for evaluation of uterine perforation. Sonography may sometimes be able to demonstrate the site of uterine rupture as a hypoechoic or anechoic transmural defect in myometrium extending to endometrium with presence of extrauterine fluid⁴. Usage of high resolution transvaginal probes can enhance the detection of perforation defects and mural hematomas⁵. Complications associated with uterine perforation include bowel injuries, as in 8.1% cases as reported by Mittal and Misra³. Risk factors for bowel injury during dilatation and curettage are previous abdominal surgery and mainly pelvic surgery leading to post surgery adhesions between the small bowel and the uterus, rendering small bowel injury inevitable if uterine perforation occur. However, small bowel injury and mainly ileal segments can still occur even with no previous surgical history probably related to the anatomical location of the ileum and relatively short mesentery rendering it more fixed.⁶ Once the diagnosis is made, prompt surgical intervention is deemed necessary, since if not treated can progress into peritonitis and consequently sepsis, as it can ultimately lead to mortality as described in one of our cases. To the best of our knowledge, there has only been one case reported of broad ligament hematoma formation after dilatation and evacuation till date in Japan, followed by our case reporting.⁷ It mentioned retroflexion of the uterus was so severe that a clear uterine image could not be seen by transabdominal ultrasonography which might have led to uterine perforation associated with D&E. Risk factors as identified in our case of broad ligament hematoma was previous caesarean section, and in second case of bowel injury might have been due to underlying tuberculosis as suggested by infected beaded tubes. No known risk factor was noted for the first case of bowel injury which culminated in mortality and it might have been unrecognised uterine perforation caused at some unauthorized centre where no documentation for such a procedure had been provided. COVID 19 pandemic might have created a background for rise in such complications in private or unauthorized centres. It is therefore our duty to create awareness among the common regarding accessibility of resources in tertiary care centres. It is also necessary for the doctors to understand the need for carrying out the procedure under ultrasound guidance, if required, in order to avoid such complications and identify complications promptly so that patients can be managed effectively, avoiding morbidity and mortality at all costs.

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