Perforated uterus: Case report and review of literature

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Abstract

Early pregnancy failure is a major health problem worldwide which occurs in 15-20% of pregnancies. During evacuation, uterine perforation is a potential complication. Careful post-evacuation follow-up helps in early detection of perforation. Perforation often requires laparotomy or laparoscopy to repair the defect and evaluate for injury to adjacent organs.

Our patient had pregnancy loss at 12 weeks and uterine perforation during a dilatation and curettage procedure. She had laparotomy, evacuation through the perforation site and uterine repair with good outcome.

Key words: Perforated uterus, Dilatation and Curettage (D&C), Manual Vacuum Aspiration (MVA)

Introduction

Uterine perforation is one the most common complications of Dilatation and Curettage (D&C) for surgical evacuation of gravid uterus, with an incidence of 0.5% [1-3]. Our patient had perforation of uterus during surgical evacuation of uterus done for missed abortion, one day earlier.

Dilatation and curettage is one of the commonest procedures worldwide and has an impressive safety record. Perforation of the uterus is one of the most serious complications [4]. It's occasionally encountered, as in the case presented.

Case Report

A 30 year old para 2+1 presented to us with per vaginal bleeding and severe lower abdominal for one day. One day prior to admission, a pelvic ultrasound scan done in a private hospital showed intrauterine fetal demise at 12 weeks of gestation. Subsequently, D&C was done in that hospital under general anaesthesia.

In the immediate post-operative period, she started experiencing lower abdominal pain and per vaginal bleeding but was reassured and discharged home. The pain and bleeding increased and the patient was in agony. The husband decided to seek a second opinion and the patient was taken to St Francis Community Hospital.

On admission, she was sick-looking, but the vital signs were normal. Abdominal examination revealed very tender suprapubic region. On pelvic examination, the uterus was bulky and adnexae tender, cervix 1cm dilated and examining fingers bloody. Pelvic ultrasound showed bulky uterus and free fluid in pouch of Douglas. Full haemogram showed haemoglobin of 8.5g/dl and leukocytosis ($14 \times 10^9/l$). She was prepared for surgery. At laparotomy, she had a posterior uterine perforation (Figure 1). There was no injury to the rectum.

Figure 1: Perforation on posterior aspect of uterus: Note the products of conception, clots and areas of inflammation

There were blood clots and products of conception in the uterus and pouch of Douglas. Evacuation was performed

through the site of perforation after which it was repaired. Peritoneal lavage was done. Post-operatively, the patient was put on antibiotics (Augmentin and Clindamycin) and analgesics for one week. She was discharged on the 2nd post-operative day. Subsequent follow-up after one week and one month respectively, showed progressive healing.

Discussion

Uterine perforation though rare, can occur during surgical evacuation of pregnant uterus. It is one of the most common complications of cervical dilation and uterine curettage. The incidence is influenced by issues regarding self-reporting by the surgeons. Some doctors prefer not to report cases of uterine perforation. It is a potential complication of all intrauterine procedures and may be associated with injury to surrounding blood vessels or viscera (bladder, bowel). The case presented had a perforation on the posterior aspect of the uterus. There are three possibilities as to how this occurred. The clinician could have perforated the uterus by use of excessive force when dilating the cervix (using Hegars dilators). Secondly, use of sharp curettage could result in the complication. Finally, forceful insertion of the canula could have such sequelae.

Immediate complication may be life-threatening haemorrhage [4]. Occasionally abdominal viscera may be dragged through the cervix [4,5]. In addition, sepsis may set in with resultant endometritis, pyometra, salpingitis, pelvic inflammatory disease and abscess. Long term complications include chronic pelvic inflammatory disease, uterine rupture or dehiscence in future pregnancies. In addition to the perforation, our patient had inflammation of the surrounding peritoneal surfaces.

Severe or persistent pelvic or abdominal pain, fever, abdominal distension and persistent bleeding per vaginum after D & C, could cause suspicion of uterine perforation [7]. Imaging studies may suggest but cannot confirm or exclude uterine perforation. Haemogram, urinalysis, blood culture may help to diagnose sepsis [6]. Diagnosis is usually the result of operator's suspicion [4]. In the case presented, the clinical presentation and pelvic ultrasound played an important role in the diagnosis.

Treatment may be expectant, laparoscopy or laparotomy where tears may be repaired or an occasional hysterectomy is performed [4]. Expectant management, applicable to minor perforations with minimal symptomatology entails giving the patient antibiotics and analgesics and observation. Laparoscopy or laparotomy enables adequate exposure to evaluate the injury to adjacent organs. In addition, evacuation through the perforation site or transcervically under direct visualization, lavage and repair of the defect is done [1,7]. In our case, laparotomy, evacuation through the perforation site and uterine repair was done. The perforation was not on the major blood vessels (uterine arteries). Hence the repair was accomplished with relative ease.

Manual Vacuum Aspiration (MVA) is an attractive alternative to conventional surgical curettage. Beneficiary of this procedure are both patients and health care providers. To the patients, it is cheap with short hospital stay, no need for general anaesthesia and early home return; while for health care providers it is easy to manage patients in busy emergency when theater and beds are not available [8].

Conclusion

Posterior uterus perforation consequent to D&C (for missed abortion) in a private clinic the previous day was repaired in our hospital with good outcome. After D&C, careful postoperative follow-up helps early detection of cases.

Consent

Written consent was obtained from the patient and administration of St Francis Community Hospital and the author appreciates their contribution.

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