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ASIAN JOURNAL OF SCIENCE AND TECHNOLOGY

ISSN: 0976-3376

Asian Journal of Science and Technology
Vol.06, Issue, 12, pp.2125-2127, December, 2015

CASE REPORT

PERFORATION UTERUS: A LIFE THREATENING COMPLICATION OF SECOND TRIMESTER SUCTION AND EVACUATION

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ARTICLE INFO

Article History:
Received 20th September, 2015
Received in revised form
08th October, 2015
Accepted 03rd November, 2015
Published online 30th December, 2015

Key words:
Perforation uterus,
Foetal skull,
Re- exploration.

ABSTRACT

Uterine perforation though a common complication but can have potentially catastrophic consequences for women ,like in our case where foetal skull was found which was missed in first exploration. We, hereby present a case of 24-year-old G2P1L1 referred from peripheral centre with a known case of poliomyelitis ,with profuse vaginal bleeding with Hb of 3.4gm/dl following induced second trimester suction and evacuation at 13 weeks of gestation with Exploratory laprotomy done for perforation in the same sitting on the same day. Patient's Ultrasound abdomen and pelvis done in our centre detected retained products of conceptus (foetal skull of 2.82cm approx 15wk1d gestation and upper portion of cervical spine in cul-de-sac). Exploratory laprotomy with Dilatation and evacuation was done after initial treatment with blood and blood concentrates after one week because the pouch of douglus collection was not resolving. These complications can be associated with severe morbidity. So appropriate training with supervision, assessment of risk factors and the generous use of cervical preparation are the features which can all help to reduce the risk of perforation and complications associated with MTP. Exercising caution in high risk cases should be compulsory and seeking help from senior gynaecologists as well as other specialties in a timely manner can, not only help to decrease morbidity but also prevent any long-term sequelae. Standardisation of management is vital as considerable variation between the operators currently exist.

INTRODUCTION

Overview :Perforation of the uterus is an accidental puncture of the uterus .Uterine perforation occurs in about 1 out of 250 (0.4%)abortion procedures (Trupin Suzanne, 2004) .The perforation rate is higher when abortions are performed in the second trimester (Trupin Suzanne, 2004). The site of perforation that is most common is the anterior wall of the Uterus 40%, Cervical canal 36%,Right lateral wall 21%, Left lateral wall 17%, Posterior wall 13%,Fundus 13% (Grimes *et al*., 1984). The incidence of uterine perforation with the use of various instrument: Suction Cannula 51.3%, Hegars Dilator 24.4%, Curette 16.2%. (Mittal and Misra, 1985) Case Presentation: This 24-year-old (Gravida 2 Parity 1 living issue 1) female known case of poliomyelitis was brought by the relatives in the emergency department with history of bleeding per vagina referred from peripheral centre. She had an induced abortion done by suction and evacuation, the same day at 13 weeks of gestation (by LMP) with exploratory laprotomy done in the same sitting. Her past medical and surgical history and her family history was not significant. Physical examination showed that she was alert, conscious and cooperative, pale, and hypotensive (BP: 88/60 mm of Hg) with tachycardia (pulse: 112/min) and temperature 101 degree F.

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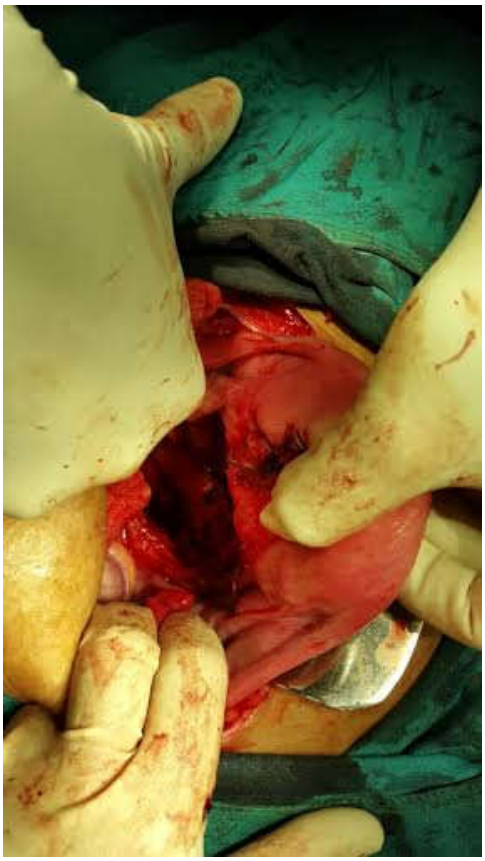
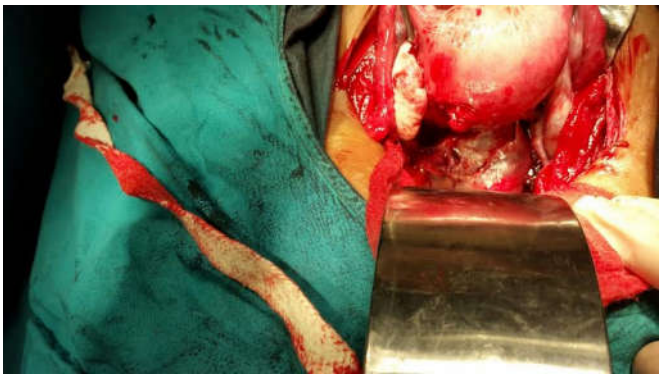
Her systemic examination was unremarkable, except the tachycardia and tenderness in the suprapubic region. Per vaginal examination demonstrated enlarged uterus (10 -week size) and some amount of tenderness in the fornix. No active bleeding was present. Resuscitation with intravenous fluids and higher antibiotics was started immediately at the emergency department, and blood was sent for cross matching and lab works. Her hemoglobin was 3.4 gm/dl, WBC count 9000/mm^3, and platelet count 14000/mm^3. Blood group: A positive. Chest X-ray, urine analysis, coagulation profile and her basic metabolic panel were within normal limits except low platelet count. Packed red blood cells (RBCs) was started as soon as it was available. After 2 units of packed RBCs, platelet transfusion was started followed by FFP. After stabilization of patient haemodynamically, Ultrasound of abdomen and pelvis that suggested collection (5.1*2.9cm)in pouch of douglus. Conservative management was decided and patient was put on iv antibiotics and sos exploration was kept. Ultrasound done after one week was same the collection didn't resolve, ultrasound by one of the radiologist with treating doctor showed uterus bulky with features of retained products of conception (foetal skull of 2.82cm aproximately 15wk1d gestational age and upper portion of cervical spine in cul-de-sac) which was missed on initial ultrasound .She was then taken to the operation room, and under aseptic conditions and general anesthesia, exploratory laparotomy was done followed by dilataion and currettage.

Hemostasis was checked and patient revived. She was further transfused packed RBCs, platelets, and FFP in the ICU post procedure. Intraoperative findings: Bladder with visceral peritoneum intact. Uterine perforation seen in the left fundoposterior region around 2*3 cm (longitudinal rent). Uterus bulky with bilateral fallopian tubes and ovaries normal. Pouch of douglas showed foetal skull of 7*6cm size behind the uterus, near sigmoid colon. Foetal skull with cervical spine in cul-de-sac intact was removed (16weeks size) with eye,nasal septum and well formed head removed and sent for histopathology examination. Uterine rent sutured. Omental adhesions present was removed. Haemostasis achieved. Paracolic gutters, peritoneal cavity, subhepatic space had no collection. Patient put in lithotomy position and dilatation and currettage done.

Rpoc's sample extracted sent for histopathological examination. Haemostasis achieved and abdomen closed in layers and patient shifted to ICU post procedure. Post operative period was uneventful with no evidence of any further bleeding from any sites. She was monitored for any evidence of bleeding and also her hemoglobin and coagulation profile rechecked. In total, she was transfused with 5 units of packed RBCs, 3 units of volume-reduced platelet concentrates, and 4 units of FFP. She had an uncomplicated recovery period and was discharged after 5 days with depot progesterone contraception with Hb of 8.6 tlc 8800 plt 1.5lac. The histopathological report of the curettage material and foetal skull confirmed findings.





DISCUSSION

Learning objectives

To be aware of the incidence of uterine perforation and the potential serious complications that can be life threatening. To identify the risk factors of uterine perforation, the mechanism of injury and how to potentially prevent it from occurring. To increase awareness of this complication and to propose a standardised management protocol if a uterine perforation occurs, together with risk management issues.

Postabortion complications usually are a result of 4 major mechanisms:(a) one of the complications of DNC in pregnant uterus in small setup is uterine perforation with migration of products of conception in abdominal cavity.(b)incomplete evacuation of the uterus and uterine atony, which leads to hemorrhagic complications,(c)infection,(d)Injury due to instruments used during the procedure to abdominal organs like bowel and omentum apart from uterus.

Prevention of uterine perforation is favoured, although if it occurs, initial recognition together with immediate and ongoing management is key to reducing morbidity, mortality and long-term consequences. It is important that surgeons performing surgical abortion are adequately trained. The experience of the surgeon results not only in fewer perforations but also in the early recognition of uterine injury. Uterine perforation is a complication that is well recognised by all gynaecologists, although subsequent assessment and management needs to be standardized. Most perforations are in the body of the uterus and are often small, tending to cause relatively little haemorrhage.

However, perforations at the internal cervical os and lower part of the uterus are more serious as they are often lateral and can involve branches of the uterine vessels. This can lead to haematoma formation in the broad ligament or serious intra-peritoneal haemorrhage. There is a danger with all perforations that instruments may have passed through the perforation and damaged an abdominal organ such as the intestines, ureter, urinary bladder or a major blood vessel. Perforation increases with gestation and is about twice as frequent in the second trimester as in the first trimester. Accurate estimation of gestational age is therefore vital. Adequate and gradual cervical dilatation, avoiding excessive force and the use of half-size dilators again reduces the risk of perforation.

Women whose injury occurred in a day unit or small independent sector hospital should be assessed, resuscitated and transferred for specialist care . It is therefore vital that all units have arrangements in place for immediate consultant advice and transfer to hospital when such emergencies occur. Following a uterine perforation and any associated injuries, admittance to hospital, intravenous antibiotics and close observation is necessary. Over the following 24 hours, temperature, blood pressure and bowel sounds must be monitored. Bowel sounds may initially still be present with bowel injury, peritonitis can take days to reveal itself clinically. Patients should be discharged after 24 hours if asymptomatic with instructions to return if any symptoms develop.

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