Severe Intraabdominal Trauma In Illegal Abortion: A Case Report
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Abstract
Unsafe abortion represents a preventable yet major cause for maternal mortality in India. A majority of these abortions are performed confidentially. Complications occur in a large portion of these cases and ultimately require tertiary care. Intestinal perforation is a rare complication of induced abortion but it is not rare in our country. It is most commonly seen in countries where abortions are performed by people with sharp pointed instruments, without proper training and knowledge of anatomy. Bowel perforation occurs when the posterior vaginal wall or uterus is violated, allowing the instrument to pierce the underlying structures. Here we discuss case of a woman who sustained injury to small bowel with a long mesenteric tear, rectal transection and tear of the urinary bladder.

INTRODUCTION
Unsafe abortion is defined as an induced abortion process either conducted by unskilled personnel or performed in a non-accredited facility. In third World countries, unsafe abortions are attributed to maternal mortality and morbidity. In our country induced abortions are performed by untrained personnel usually lady health visitors, untrained birth attendants and nurses in dirty environment with subsequent high risk of haemorrhage, infection and injury to genital tract, or gastro intestinal tract. Incidence of uterine perforation varies from 0.4 to 15 per 1000 abortions as reported by different studies. Although most uterine perforations at the time of curettage during first trimester abortion go unrecognized and untreated, serious complications do occur. Inexperienced physicians have been reported to perforate the uterus more frequently than experienced physicians. An illegal abortion by unqualified inexperienced hands without or with minimal medical knowledge in rural society of developing countries is not uncommon. Complications can endanger the life of mother if proper medical or surgical intervention is not offered in time.

CASE REPORT
A 20 years old patient [G4 P2 L2 A1] having 6 months of amenorrhea came with chief complaints of pain in the abdomen and bleeding per vagina since afternoon. She was referred from outside hospital where dilatation and curettage (incomplete) was done that day afternoon. The relatives were shown only limbs of the foetus after the abortion. Her period of gestation was 24 weeks.

On examination the patient was semi-conscious, afebrile having pulse-104/minute and B.P-100/60 mm Hg. She was having severe pallor. Per abdominal examination showed generalized tenderness with guarding and rigidity. The uterus was corresponding to 16 weeks of gestational age. Per vaginal examination revealed presence of bowel loops outside the introitus. On Foley’s catherisation dark blood stained urine was drained. Ultrasound was suggestive of perforated uterus with foetal parts outside the uterine cavity. The patient was taken for surgery by both surgeon and the gynaecologist.

Operative Findings: On opening the abdominal cavity, haemoperitoneum was present (1.5 litres). The uterus was 16 weeks size. Complete scar rupture was seen with a 24-25 weeks foetus (with no arms and rib cage exposed) lying in the peritoneal cavity. The patient’s relatives gave history of removal of 2 arms during dilatation and curettage done outside.

On further examination a rent of approximately 5cm size was seen in the dome of the urinary bladder. Foley’s bulb was seen through the rent. A mesenteric tear along the mesenteric border of small bowel was present for about the
length of 2.5 metres. The small bowel was perforated and gangrenous. The full length of injured bowel was bare tubes without any mesentery. The mesentery was stripped off from the bowel loops at the mesenteric border without serious vascular disruption. The bowel was passing into the vagina through the rent in the uterus. Complete transection of the rectum was identified. The distal part of the rectum was so torn that the inner tube of the mucosa was separate and the outer layers of the bowel were torn apart. The proximal end of the transected colon was lying in the left paracolic gutter. The sigmoid colon was totally torn. [Figures 1 – 7]

**Figure 1**
Figure 1: Tear in the uterus.

**Figure 2**
Figure 2: Dead foetus with both hands amputed and chest wall injured at the time of illegal abortion.

**Figure 3**
Figure 3: Perforated small bowel showing leaking faecal matter.

**Figure 4**
Figure 4: Tear in the dome of the urinary bladder.
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Figure 5
Figure 5: Lower end of the transected rectum.

Figure 6
Figure 6: Mesentery stripped off from the injured small bowel at the time of abortion.

Figure 7
Figure 7: Specimen showing the dead foetus, resected injured small bowel and the mesentery.

Operative procedure: The haemoperitonium was drained out. The dead fetus was identified and removed. The lower uterine segment was very friable. A uterine tear was identified and was sutured with vicryl in 2 layers. An above procedure was done by the gynaecologists and the case was handed over to the surgeon.

Gangrenous small bowel (mainly jejunum) of about 2.5 meters was resected. The mesentery of the resected bowel was excised and sutured with mersilk. Four layered end to end small bowel anastomosis was done. The tear in the mesentery was sutured with mersilk. A rent of size 5X3 cm was present in the urinary bladder. Openings of ureters in the bladder were identified and found not to be injured. The rent in the bladder was closed in 2 layers with vicryl. Posterior to the uterus rectum was totally transected. In the distal part of the rectum the inner mucosal layers and outer layers were totally torn apart. The distal rectum was closed in layers using vicryl and a Hartmann’s procedure was done. The proximal part of the transected colon was mobilised by incising the peritoneum at the white line of Toldt and a sigmoid colostomy was performed in the left iliac fossa. Two abdominal drains were kept (1 in the pelvis and the other in the Morrison’s pouch). Thus the operative procedure done was an exploratory laparotomy + uterine rent closure + small bowel resection and end to end anastomosis + Hartmann’s procedure + end colostomy + closure of bladder perforation.

Postoperatively the patient was given broad spectrum antibiotics. On postoperative day 3 (POD-3), the patient developed coarse crepts on the left side of lung. The
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respiratory rate was 28/minute; there was decreased air entry on left side of chest with SPO₂ of 89% without oxygen. We suspected consolidation/atelectasis. X-Ray chest was done which revealed collapsed left lung with mucus plug in left bronchial tree. Chest physiotherapy keeping the left side chest in non-dependent position and breathing exercises were started. Mucolytics, Nebulisation with Combinist 4³ hourly, Budecort 4³ hourly, Mucomist 4³ hourly were given. The patient had full lung expansion on the next day. On day 6 bowel sounds were present and the colostomy started functioning. On day 11 the abdominal drains were removed. The lungs were clear by day 12. On day 15 the antibiotics were stopped. On day 15 the patient complained of pain in the right inguinal region along the whole right lower extremity. On local examination there was tenderness in the right inguinal region and calf region. Venous colour doppler of right leg revealed acute deep vein thrombosis extending from popliteal veins upto common femoral vein including saphenofemoral junction. The external iliac vein was patent. Platelet count was 2.7 lakhs/cumm, Prothrombin time (PT) was 16sec and INR was 1.1. We advised strict immobilisation, injection unfractioned heparin 25000 IU in 1 pint NS over 24hrs followed by injection heparin 5000 IU 6 hrly for 1 day. Tablet Warfarin OD also was started. On day 17 IV heparin was stopped and the patient was put on injection Enoxaparin 0.6 mg for 5 days. PT and INR were regularly done. On day 27 cystography was done and the films showed a normal study. There was no leak from the bladder. On day 28 a silicon catheter was inserted to help the patient during prolonged immobilization. Tab. Warfarin 5mg OD was continued. The patient was discharged on day 45. Later closure of the colostomy was planned.

DISCUSSION

Every year, 50 million abortions occur worldwide. About 19-20 million of them are unsafe abortions and an estimated 68000 women die as a result. A high proportion of maternal deaths caused by abortion are especially due to illegal unsafe abortion. [4] According to World Health Organization, in every 8 minutes a woman in one of the developing nations will die of complications arising from unsafe abortion, making it one of the leading causes of maternal mortality (13%). [1] Under the Revised Medical Termination of Pregnancy Act (MTP act) in India, both the caregiver and the patient are held liable for unsafe abortion. [5]

Nearly all unsafe abortions (97%) are in developing countries. Unsafe abortion is usually associated with complications such as, abnormal vaginal discharge, fever, septic shock which occur as a result of low resource setting such as lack of sterile equipment, use of sharp or inappropriate objects. It was found that infection is seen in upto 51% of illegal abortions. Invasive methods, such as insertion of tubes or liquids into the uterus, were more successful compared to the other methods. However, these more invasive methods are associated with increased risks. Foreign bodies inserted into the uterus to disrupt the pregnancy can damage the uterus and internal organs, including bowel, even urinary bladder. Objects used for abortion are knitting needles, a flexible rubber catheter, MR cannula, straight wooden stick or roots. [6]

World wide millions of women seek induced abortions which if successful and complete remain a secret and if complicated get highlighted due to their management at hospital level. The hospital data represents just tip of the iceberg. The problem at community level is much bigger and graver. Septic induced abortion is an important cause of maternal morbidity and mortality and is completely preventable. [4]

Septic abortion is the one that gets complicated with infection and is associated with fever, endometritis, parametritis and peritonitis. Acute consequences of pelvic inflammatory disease can spread to the state of septicaemia and disseminated intravascular coagulation especially in the presence of low resistance of the patient and high virulence of organisms. In chronic phase, patient faces chronic pelvic inflammatory disease with consequent dyspareunia, dysmenorrhoea and infertility. All these consequences occur in the back ground of an unwanted pregnancy being terminated by an untrained lady health visitor or a day in a dirty environment with the promise of maintaining secrecy. [7]

It is very difficult to identify and record abortion, including induced abortion. These patients come in a moribund stage and one has to give multiple antibiotic cover to treat the infection and then resort to surgery like evacuation of the uterus, colpotomy to drain a pelvic abscess, or laparotomy to deal with visceral injuries. To improve the outcome, surgery should be done early rather than late. [8]

In a study in India, they show that among all complications, bowel injury is the most dangerous. It leads to significant number of deaths, which mostly occurred among women undergoing abortion where criminal methods were used and where no proper medication and follow-up was there. It also showed that higher mortality was associated with injury of
large gut, and sooner the reparative surgery, the better was the prognosis.\[4\

Uterine perforation, bleeding, injury to bladder and bowel, sepsis, shock and death are immediate complications of unsafe abortion. In our case, unskilled instrumentation perforated the gravid uterus, through which the mutilated fetus escaped intraperitoneally. Unsafe abortion has also been associated with long-term adverse conditions, including vesicovaginal fistula, rectovaginal fistula, bowel resection, chronic pelvic inflammatory disease (PID) and infertility.\[8\

Although there is a declining global trend in the incidence of abortion, surprisingly, unsafe abortion rates are gradually escalating, especially in the developing World. However, the statistics of unsafe abortions likely underestimate the number of events.\[9\

In our case curettage was done by an unqualified nurse to abort the 3rd female foetus. Lack of education, social stigma, female foeticide and other barriers to abortion, force women to seek abortion in secrecy at a high cost, leaving the poorest, least educated women to unskilled and highly unscrupulous executors and hence the greatest risk of injury. Abortion when legal should be safe. The most effective way to reduce the morbidity and mortality would be to prevent unwanted pregnancies by informed and effective use of contraception. Also the society should be educated to accept the female child. Easy accessibility of abortion services, curb on unauthorized medical practice can reduce the complication rate.\[3\

Extensive research indicates that induced abortion continues to be a procedure requested by women and her relatives. It is important for health care provider to understand the process of induced abortion to recognize the potential risks, benefits and complications of this procedure. It is an obligation of medical profession to keep it safe.\[3\

**CONCLUSION**

Unsafe illegal abortion is an important social and public health problem that causes significant morbidity and mortality, especially in the developing world. Prompt diagnosis and appropriate intervention might provide better outcome. Therefore early referral and safe abortion services by skilled personnel in peripheral centers are necessary to limit mortality and morbidity of unsafe abortion.

**References**

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