Original Research Paper

Volume - 11 | Issue - 07 | July - 2021 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Obstetrics and Gynecology

DEGLOVING BOWEL INJURY FOLLOWING SECOND TRIMESTER PREGNANCY TERMINATION IN THE ERA OF MODERN OBSTETRICS: A CASE REPORT

Dr. Shree Bharathi*	Senior Resident, Department of Obstetrics and Gynaecology, Jawaharlal Institute of Postgraduate Medical Education and Research Puducherry-06, India. *Corresponding Author
Dr. Deepthi Nayak	Senior Resident, Department of Obstetrics and Gynaecology, Jawaharlal Institute of Postgraduate Medical Education and Research Puducherry-06, India.
Dr Vinodhini Kadir	Junior Resident, Department of Obstetrics and Gynaecology, Jawaharlal Institute of Postgraduate Medical Education and Research Puducherry-06, India.
Dr. Niveditha Jha	Assistant Professor, Department of Obstetrics and Gynaecology, Jawaharlal Institute of Postgraduate Medical Education and Research Puducherry-06, India.
Dr. Haritha Sagili	Professor, Department of Obstetrics and Gynaecology, Jawaharlal Institute of Postgraduate Medical Education and Research Puducherry-06, India.

ABSTRACT Degloving injury to the bowel following uterine instrumentation is a rare complication of second trimester abortion. Unsafe abortion practices can lead to such complications adding on the maternal mortality and morbidity. Here we present a case of 19-year-old unmarried girl who had undergone medical abortion and sustained decapitation of the fetal head during breech delivery which necessitated instrumentation for its retrieval leading to perforation and degloving bowel injury.

KEYWORDS : Degloving bowel injury, Second trimester, Unsafe abortion, Uterine rent

BACKGROUND

With advancement in medical care, safe abortion practices have been implemented and stressed upon all throughout the world. Abortion services have been legalised in India since 1971 through the MTP act which allows for termination of pregnancy on various basis such as social cause, fetal anomalies or impairments, rape or pregnancy due to contraceptive failure. In spite of such provisions, 5% of all abortions are performed in unsafe environment by unskilled personnel using illegal means. [Singh S, 2018]. Unsafe abortions are associated with complications such as genital sepsis, hemorrhage, pelvic infection, uterine and bowel perforation, disseminated intravascular coagulation, renal failure, pulmonary complications and jaundice. These contribute significantly to prolonged hospitalization, maternal mortality and morbidity. Bowel injuries during unsafe abortions can have varied incidence and it was reported to be 18% by Jain V in 2004. [Vanita Jain, 2004] Early recognition and prompt institution of surgical management is paramount in decreasing bowel perforation and long-term consequences following bowel injury. We present a case of degloving bowel injury following instrumentation in second trimester of pregnancy.

Case history

A 19-year-old unmarried girl presented to our emergency department with history of five months of amenorrhea, having attempted second trimester pregnancy termination. She had undergone medical methods for termination of pregnancy by an unskilled practitioner in view of unwanted pregnancy and had expelled the fetus as breech with entrapment of after coming head. This was followed by decapitation. An attempt was made to retrieve the head by instrumentation of the uterus which failed and hence the patient was referred to our center. On examination, patient's vitals were stable, she was dehydrated and abdomen was tender with presence of guarding and rigidity. Local examination showed loops of degloved bowel protruding through the introitus (Figure 1)

Ultrasound examination showed fetal head with bi-parietal diameter corresponding to 20 weeks of gestation lying in the right iliac fossa with free fluid in the abdomen. Medico-legal case was registered and patient was taken up for laparotomy after taking written informed consent. Laparotomy revealed 600ml of hemoperitoneum with fetal skull and placenta lying in the abdomen which were retrieved. Eight-centimeter rent was noted in the posterior wall of the uterus though which bowl loops were seen entering into the uterus. Degloving injury was noted to the bowel extending from lower part of the rectum up to the proximal part of the transverse colon (Figure 2). Left hemicolectomy (Figure 3), end transverse colostomy and closure of distal rectal loop was done and rectal stump was fixed to the anterior abdominal wall. Uterine rent was repaired with chromic catgut 1-0 in three layers.

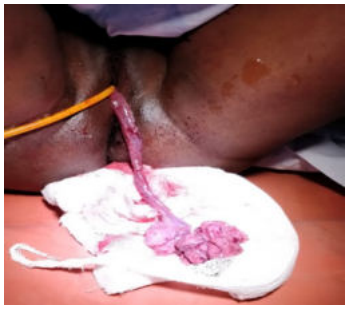

Figure 1: loops of degloved bowel protruding through the introitus

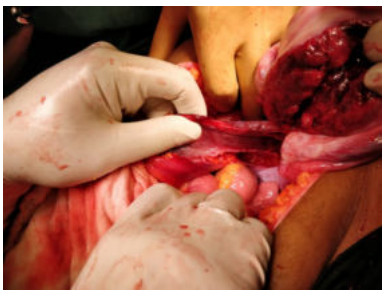

Figure 2: Rent in the posterior wall of uterus through which bowel was protruding into the vagina.

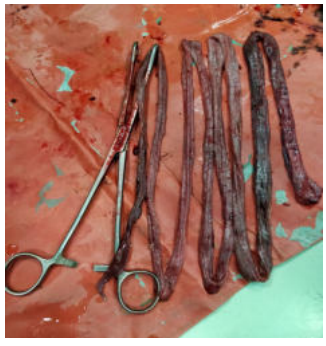

Figure 3: specimen of Left hemicolectomy

Postoperative period was uneventful and patient was discharged on tenth postoperative day. Patient was advised regarding contraception and safe sex practices. In the follow up period, patient was doing well. Re-anastomosis surgery was planned for, after five months.

DISCUSSION

In India, 16 million abortions take place annually, out of which, approximately three fourth occur outside of health facilities. Most common methods used for abortion is medical (81%) followed by surgical (14%) and about 5% used other unsafe methods. [Singh S, 2018]. A recent study of secondary analysis of data from nine states in the Indian Annual Health Survey (2010–2013) reported 67% of abortions to be unsafe; however, the abortion rates are highly under-reported and could be non-representative. [Yokoe R, 2019]. Most illegal termination of pregnancy occur in rural areas of low- and middle-income countries without adequate facility and untrained personnel which increases the abortion complications. Abortion complication rate is 15.7 per 1000 women in reproductive age per year in India. [Singh S, 2018]

For second trimester pregnancy termination, both medical as well as surgical methods are followed. Thirty five percent of the unsafe abortions are done by primitive techniques and about 46% are done by dilatation/ suction evacuation or curettage. Following such abortion, half of the women develop visceral injuries, of which, bowel and bladder injuries can be seen in 20% of the women. [Jain V, 2004] A retrospective study of bowel perforation following illegal abortion conducted in Tanzania reported that majority of the women accessing illegal abortion are unmarried, school-dropouts and unemployed. Most of the abortions occur in second trimester and use dilatation and curettage to achieve the outcome. [Mabula JB 2012]

Majority of the bowel injuries are seen following uterine perforation during curettage with curette, ovum forceps or uterine sound, or even the plastic cannula. In a review article by Augustine G et al, he reported that uterine perforations mostly involve the fundal region, followed by posterior wall. Retroverted uterus, history of prior uterine surgery, not utilizing ultrasound, and untrained personnel are the factors implicated with higher incidences of uterine perforation. Bowel can be perforated, degloved or can get incarcerated into the uterine defect. Incarceration of bowel or degloving injury occurs when the bowel loops are pulled out of the vaginal introitus during curettage as seen in the present case. [Augustine G, 2013] Retrospective analysis by Jhobta R et al found that large bowel is commonly inured following posterior uterine perforation, and anterior perforation led to small bowel injuries. Fundal perforation led to herniation of the bowel segments into the uterine cavity leading to bowel ischemia. [Jhobta R, 2006]

Degloving injury of intestine involves separation of seromuscular layer from the underlying mucosa due to the shearing force with pouting of the mucosa through the tear. [Armstrong T, 2002] This injury occurs following uterine perforation when the instrument catches hold of a bowel loop and drags it into the uterine rent. Ileum and sigmoid colon are the most commonly injured portions of the bowel due to their anatomic location. There have been case reports of degloving bowel injury following unsafe abortion. Resection and anastomosis with uterine rent repair is the most common procedure performed in cases of bowel injury following unsafe abortion. [Carg N 2004] [Chawla S 2016] During laparotomy it is important to look for retained products of conception in the abdominal cavity as it could have entered into abdomen following perforation. The complication and mortality rate of bowel injury following unsafe abortion is 47.1% and 10.3% respectively. Gestational age at termination, delayed presentation, timing of surgical intervention (delay) and postop complications following bowel injury repair are significantly associated with mortality. [Mabula JB 2012]. In the present case though abortion was medically induced, decapitation of the fetal head necessitated instrumentation for its retrieval which led to perforation and bowel injury

CONCLUSION

Termination of pregnancy in the 2nd trimester is associated with more complications when compared to early termination. Uterine perforation and bowel injuries are more common with surgical methods in comparison to medical methods of abortion. Due diligence should be observed while performing surgical abortion by the trained personnel to avoid untoward incidents. Though medical termination of pregnancies has been legalized in India, education and awareness regarding importance of safe abortion practices by trained personnel in a health care facility need to be re-enforced.

REFERENCES

1. Singh S, Shekhar C, Acharya R, et al. **The incidence of abortion and unintended pregnancy in India, 2015**. Lancet Glob Health 2018;6:e111–20. 10.1016/S2214-109X(17)30453-9
2. Jain V, Saha SC, Bagga R, Gopalan S.. Unsafe abortion: a neglected tragedy. Review from a tertiary care hospital in India. J Obstet Gynaecol Res 2004 Jun;30(3):197-201. doi: 10.1111/j.1447-0756.2004.00183.x
3. Yokoe R, Rowe R, Choudhury SS, et al. . Unsafe abortion and abortion-related death among 1.8 million women in India. BMJ Glob Health 2019;4:e001491. 10.1136/bmjgh-2019-001491
4. Mabula JB, Chalya PL, Mchembe MD, Kihunrwa A, Massinde A, Chandika AB & Gilyoma JM. Bowel perforation secondary to illegally induced abortion: a tertiary hospital experience in Tanzania. World Journal of Emergency Surgery 2012, 7:29
5. Augustine G, Majerovic M & Luetic Tomislav. *Uterine perforation as a complication of surgical abortion causing small bowel obstruction: a review*. Arch Gynecol Obstet (2013) 288:311-323, DOI 10.1007/s00404-013-2749-4
6. Jhobta, R. S., Attri, A. K., & Jhobta, A. Bowel injury following induced abortion. Int J Gynecol Obstet 2006, 96(1), 24–27.
7. Armstrong T, Blaquiere RM, Varshney S, Primrose JN. Traumatic 'degloving' of the colon in blunt abdominal injury. *Colorectal Dis*. 2002;4:141-43
8. Carg N, Bajwa SK, Kaur J, Khichy S. Unsafe Abortion - Shearing of Sigmoid and Descending Colon. *J Obstet Gynecollnd 2004*,54(*1):83-84.*
9. Chawla S, Jain S, Suneja A and Guleria K. Degloving Injury of Bowel: An Unheard Complication of Surgical Abortion. J Clin Diagn Res. 2016 May; 10(5): QD01–QD02.