

Patterns of Bowel Injuries and its Management Outcomes in Unsafe Abortion

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ABSTRACT

Aim: To study the pattern of bowel injuries after induced abortion and morbidity and mortality associated with it.

Design: Retrospective study.

Method: The study was conducted in West Surgical Unit of Mayo Hospital, Lahore over a period of two years from 1st Jan 2009 to 31st Dec 2010, comprising 32 patients.

Results: Study includes 32 patients. Mostly young female with age ranging from 19-43(Mean 27.46)years. 29(90.6%) patients were married and 3(9.3%) were unmarried. All patients underwent exploratory laparotomy and it was found that 18(56.2%) patients were having small bowel injury out of which 15(46.8%) patients were having ileal injury ,2(6.2%) jejunal perforation and 1(3.1%) were having both jejunal and ileal perforation. Large bowel was injured alone in 12(37.5%) out of which transverse colon injury seen in 1(3.1%) and sigmoid colon in 11(34.3). In 2(6.2%) both small and large intestine were injured. In 3 (9.3%) small intestine was seen coming through vagina. Severe hemorrhage occurred in 7(21.8%), primary repair was done in 2(6.2%) with jejunal injury and 2(6.2%) with ileal perforation with minimal contamination due to early presentation. Ileostomy was done in 13(40.6%). For large bowel injury loop colostomy in 7(21.8%), Hartmann's procedure in 2(6.2%) and colostomy with mucous fistula performed in 3(9.3%) patients. Wound infection seen in 9(28.1%), wound dehiscence in 4(12.5%), pelvic abscess in 3(9.3%), one patient abdomen was not possible to close primarily due to late presentation leading to gut edema so boghota bag was applied. Mortality seen in 5(15.6%) patients.

Conclusion: Injuries to intestine is most common during abortion whether legal or illegal, when performed by unqualified personnel i.e. dais, nurses and quacks. Morbidity and mortality increases with late presentation to the hospital due lack of assessment of complications by them. Such complications can be over come if performed by qualified medical personnel with all the health care facilities and proper legislation.

Keywords: Induced abortion, Bowel injuries, ileostomy, Colostomy

INTRODUCTION

Abortion is illegal in our society unless pregnancy endangers the mother's life. Induced abortion both, religiously & socially is condemned in our community. Morbidity and mortality is high when it is undertaken by unqualified personnel with lack of adequate knowledge, skill and health facilities. More importantly, these injuries go unnoticed and unrecognized by these unqualified personnel compounding the complications further as the time elapsed is prolonged between the occurrence of the complications, their recognition and management. Following instrumentation for inducing the abortion, uterine and subsequent intestinal injuries can occur resulting in maternal morbidity and mortality. Illegal abortions are performed especially in unmarried females with secrecy. These abortions are performed at the clinics run by quacks, dais & nurses with little knowledge of the procedure and its outcomes. Most

of the patients belong to low socio-economic status. The fear of legal prosecution against them, social pressure after illegal abortion and subsequent complications are the reasons for delayed referral to hospital. Timely and appropriate management of complications can reduce morbidity and prevent mortality.

MATERIALS AND METHOD

This was a retrospective study of our experience, of the patients who presented to the accident and emergency department of Mayo Hospital, Lahore with history of induced septic abortion and intestinal injury, over a period of two years from 1st Jan 2009 to 31 Dec 2010 comprising of 32 patients with average age of 27.46 years. Data was collected in a standardized form by one of the authors. All the patients were admitted through emergency. After resuscitation, complete history and examination was performed and

relevant investigations carried out. Patient's age, parity, marital status, gestational age, time elapse between abortion and presentation to hospital, presenting complaints, site of injury, and its management outcomes were recorded in a proforma by one of the authors. After initial resuscitation and optimization under cover of appropriate antibiotics, exploratory laparotomy was performed and surgery performed depending upon the findings. Post-operative complications were noted and the patients followed-up in the out-patients clinic.

RESULTS

Thirty two patients with bowel injuries secondary to induced abortion whether legal or illegal were included in the study over the period of two years. Their age ranged from 19 to 43 years, Mean age being 27.46 years. Most of the women were married and had three or more children, only 3 were unmarried. 5(15.6%) cases had their abortion between the 7th to 9th week, and the remaining between 10th to 14th weeks. Majority of the patients presented quite late following the induced abortion and injury; only 3(9.3%) reported during the first 24 hours. These three patients were aborted and managed by qualified doctors, and the remaining by unqualified individuals, hence the late recognition of complications. 7(21.8%) cases were in an advanced degree of shock. 3(9.3%) had their small gut together with the mesentery pulled out of the vagina and was resected by the operator, considering them to be the cord. All these three patients subsequently expired. The rest were in varying grades of anemia, tachycardia, distension, peritonitis, sepsis, hemorrhage and oliguria. Exploratory laparotomy was done in all the cases and pattern of intestinal injuries were noted (Table 1) and found that 18(56.25%) patients were having small bowel injury out of which 15(46.87%) patients were having ileal injury, 2(6.2%) jejunal perforation and 1(3.1%) were having both jejunal and ileal involvement. Large bowel was injured alone in 12(37.5%) out of which transverse colon injury seen in 1(3.1%) and sigmoid colon in 11(34.3%). In 2(6.2%) both small and large intestine were injured.

In 5(15.6%) small intestine was seen coming through vagina. Severe hemorrhage occurred in 7(21.8%), Primary repair was done in 2(6.2%) with jejunal injury and 2(6.2%) with ileal perforation with minimal contamination due to early presentation, ileostomy done in 13(40.6%). For large bowel injury loop colostomy in 7(21.8%), Hartmann's procedure in 2(6.2%) and colostomy with mucous fistula performed in 3(9.3%) patients. ileostomy with primary colonic repair done in 2(6.2%) due to combine

injuries to small and large intestine during abortion (Table 2).

Wound infection seen in 9(28.1%), wound dehiscence in 4(12.5%), pelvic abscess in 3(9.3%), one patient abdomen was not possible to close primarily due to late presentation leading to gut edema so boghota bag was applied. Mortality seen in 5(15.6%) patients (Table 3)

Table 1: Percentage of bowel injury

Type of bowel injury	n	%age
Jejunum	02	6.2
Ileum	15	46.8
Jejunum and ileum	01	3.1
Transverse colon	01	3.1
Sigmoid colon	11	34.3
Small and large intestine both	02	6.2

Table 2: Type of bowel injury and the procedure performed

Type of bowel injury and procedure performed	n	%age
Small bowel		
Primary jejunal repair	02	6.2
Primary ileal repair	02	6.2
Ileostomy	13	40.6
Ileostomy and jejunal repair	01	3.1
Large bowel		
Transverse loop colostomy	01	3.1
Sigmoid loop colostomy	06	18.7
Hartmann' procedure	02	6.2
End colostomy with mucous fistula	03	9.3
Both small and large bowel		
Ileostomy and primary colonic repair	02	6.2

Table 3: Post operative morbidity and mortality

Post-operative complications	n	%age
Wound infection	9	28.1
Wound dehiscence	4	12.5
Pelvic abscess	3	9.3
Mortality	5	15.6
Uneventful	11	34.3
Wound infection	9	28.1

DISCUSSION

Unfortunately bowel injury is most commonly encountered in a situation where instrumentation for abortion is carried out without proper training and use of improvised instruments¹. As abortion is legally prohibited in our country and the associated social and religious stigmata provide opportunities for unqualified persons to provide such services, often in secrecy and without equipped settings^{2,3}. If any complication during this procedure arises, both patient and his family do not seek help from tertiary centre due to social and religious reasons. On the

other hand tertiary care health facilities are also limited to few big cities in our country and it further worsens the situation^{4,5,6}.

Mean age in our study correlates favorably with the study done by Obed and Wilson⁷. Contrary to the finding by Oludiran and Osime⁸ majority of the patients in our cohort were married and were multipara 2(6.2%) patients with jejunal and 1(3.1%) with ileal perforations underwent primary repair after thorough cleansing, washing and refreshing of the margins, as they had presented earlier in the first 24 hours and with minimal peritoneal contamination. 15(9.1%) patients with ileal perforation, who presented late and had severe peritonitis were treated by ileostomy. in this study the commonest site of bowel injury were ileum and sigmoid colon⁸.

Early presentation with minimal contamination particularly with small bowel involvement had a better outcome even following primary repair^{9,10,11}. In contrast, late presentation, greater degree of contamination or established sepsis, especially with colonic involvement, had a more protracted stay and poorer outcome in terms morbidity and mortality^{4,5,8,12,13,14,15}.

Results of study shows that patients who present early, having minimal contamination and only small bowel injury recover earlier and complication rate is less how ever like other studies this study also emphasize that poor socioeconomic status, curettage done by unqualified persons, lack of specialist centers and doctors in rural areas, delayed referral to due to unrecognized injury, reluctance and hesitancy of both patient's family and abortionist because of the fear of legal consequences and complications like hemorrhage, shock, colonic injuries and sepsis on presentation are the myriad of factors responsible for the higher rate of morbidity and mortality^{1,7,16}.

CONCLUSION

In order to avoid the morbidity and mortality associated with unsafe abortions it is necessary to understand the scope of the problem and related factors. Easy accessibility of health services when needed, crackdown on all the unauthorized personnel involved in this business, education programmes of family planning can also prevent unwanted pregnancies thus reducing unsafe abortions.

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