

Morbidity and Mortality from Bowel Injury Secondary to Induced Abortion

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ABSTRACT

Eight patients managed for bowel injury following induced abortion were studied for the pattern of morbidity and mortality. The patients were aged 18–39 years. Three of them were married, five were single. Two of the cases were detected at the time of termination of pregnancy. The interval from termination of pregnancy to presentation in hospital was two days to two weeks in the other six patients. Injury was in the ileum in three, jejunum in two and the sigmoid colon in three. Twenty surgical interventions were performed for primary treatment and management of complications. Major complications were abdominal wound dehiscence (5), faecal fistula (2) and postoperative diarrhoea (1). The duration of hospitalisation at the first admission ranged from seven to 163 days. The excessive morbidity is attributed to delay in presentation; most patients been seen after 72 hours. Primary repair of colonic injury is discouraged. No death was recorded. Literature is reviewed on the condition in West Africa and suggestion made on means of reducing morbidity from induced abortion. (*Afr J Reprod Health* 2003; 7[3]: 65–68)

RÉSUMÉ

Morbidité et mortalité provoquées par la blessure intestinale secondaire à l'avortement déclenché. Huit patientes qui suivaient des traitements pour les blessures intestinales suite à des avortements déclenchés ont été étudiées pour vérifier les types de la morbidité et de la mortalité. Les patientes étaient âgées de 18-39 ans. Trois d'entre elles étaient mariées alors que deux étaient célibataires. Deux cas ont été dépistés au moment de l'interruption de la grossesse. La période entre l'interruption de grossesse et la présentation à l'hôpital était de deux jours à deux semaines chez les six autres patientes. Il y avait une blessure dans l'iléon chez trois. Il y a eu vingt interventions chirurgicales pour le traitement primaire et la prise en charge des complications. Les complications principales étaient la lâchage de suture abdominale (5), fistule fécale (2), la diarrhée postopératoire (1). La durée de l'hospitalisation à la première admission variait entre sept et cent soixante trois jours. La morbidité excessive est attribuable au délai dans la présentation à l'hôpital; la plupart des patients ont été vus après 72 heures. La réparation primaire de la blessure colique est découragée. Il n'y a pas eu des décès. La littérature a été revue sur la condition prévalente en Afrique de l'ouest et nous avons fait des propositions sur les moyens de réduire la morbidité occasionnée par l'avortement déclenché. (*Rev Afr Santé Reprod* 2003; 7[3]: 65–68)

KEY WORDS: *Induced abortion, bowel injuries, morbidity*

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Introduction

Intestinal injuries from penetrating stab or shotgun assault are common features in surgical practice worldwide with an observable rising trend. Equally significant, though less common, is intestinal damage arising as a complication of induced abortion. The intestine may be injured with the curette, ovum forceps or uterine sound, or even the plastic cannula. Even though Nigerian law prohibits induced abortion for social reasons, an estimated 25 per 1000 women of reproductive age group have it done annually.¹ Therefore, most cases are performed clandestinely. Complications from the procedures are therefore often concealed, resulting in incomplete documentation. The management of cases with intestinal injuries poses some major challenges in the usual setting of systemic sepsis, gross peritoneal soilage and circulatory insufficiency consequent upon late presentation. Recently, our general surgical service has been involved in the management of a few cases with an unusually prolonged clinical course.

A 10-year retrospective study was therefore carried out to highlight this complication of induced abortion, the pattern of morbidity and mortality, with suggestions on ways of reducing it. The literature is also reviewed on this problem in the West African sub-region.

Patients and Methods

The medical records of patients jointly managed by the surgical and gynaecological teams at the University of Benin Teaching Hospital (UBTH) for intestinal injuries secondary to induced abortion from January 1992 to December 2001 were reviewed. Information was elicited on standard demographic data, parity, gestational age at termination of pregnancy, interval from termination of pregnancy to presentation in hospital, clinical presentation, site of intestinal injury, management and clinical outcome. Additional information was obtained from theatre records, nursing records and discussions with attending surgeon when necessary.

All cases were first seen by the gynaecologists who made the diagnosis based on clinical findings. Ancillary radiological, haematological and biochemical investigations were carried out after

initial fluid resuscitation. The patients were optimised clinically and commenced on broad spectrum antibiotics active against anaerobes, gram positive and gram negative organisms. The surgical team was then invited to join in the management. Exploratory laparotomy was carried out with repair of uterine and intestinal injury as deemed appropriate by the operating surgeon. Both teams were usually involved in the postoperative management and outpatient follow-up.

Results

Eleven patients were managed for this condition during the period under review. Only eight of the case notes were available for review and were included in this study. Their ages ranged from 18–39 years (median age 26 years). Three of the subjects were married with one, two and nine previous deliveries respectively. The gestational age at termination of pregnancy was eight weeks in three cases, sixteen weeks in another three, while two patients terminated theirs at ten and twelve weeks respectively.

Only two patients were seen within twenty-four hours of termination of pregnancy: one of them had intestinal prolapse from the vagina on the table during evacuation for a missed abortion at our hospital; the other had a similar prolapse noticed by the referring private doctor. The remaining six patients presented from two days to two weeks from termination of pregnancy. They had fever, abdominal pain, nausea and vomiting, abdominal distension and constipation at presentation. They were in varying states of shock, were anaemic and had features of peritonitis. The choice of antibiotics was cephalosporins, metronidazole with or without gentamicin.

The ileum was involved in three patients, jejunum in two. Two patients had injury to the sigmoid colon and one to the recto-sigmoid. Surgical management of the patients with small intestinal injury was resection and anastomosis in addition to management of uterine injury and peritoneal toileting. Large bowel injuries were treated with primary resection and anastomosis with proximal faecal diversion (1), without diversion (1) and a Hartmann's procedure (1).

Postoperative complications were diarrhoea (1), faecal fistula (2) and abdominal wound dehiscence (5). All eight patients required a total of twenty surgical interventions; laparotomies (12), secondary suturing of abdominal wound (5) and closure of colostomy (3).

Median duration of initial hospitalisation (DOH) was 29 days (range 7–163 days). The only patient who had her intestine injured at evacuation for a missed abortion in our hospital had the least morbidity (DOH 7). Indeed, she was back for antenatal booking the following year.

The patient who had primary repair of large bowel injury without a colostomy developed anastomotic failure twice and needed a defunctioning colostomy at her third surgery (DOH 163). DOH was similar in patients with small bowel injury and the two patients who had faecal diversion procedures. The necessity for a second surgery, however, increased morbidity in the later group.

No death was recorded in this series.

Discussion

Intestinal injuries secondary to induced abortion though uncommon is a significant and major cause of morbidity in West African females. Indeed, because other causes of penetrating injuries of the intestine like stabs and gunshots are uncommon in females, induced abortion is emerging as a major contributor to such injuries in this subset of the population in civilian practice. In Cameroon, out of a total of five females with anorectal injury treated over a five-year period, two were from illegal abortion.² Like in this report, Ntia and Ekele reported treating nine cases over an eight-year period at the Usmanu Danfodio University Teaching Hospital, Sokoto, Nigeria.³ Similarly in Accra, Ghana, of 79 cases of uterine perforation from induced abortion, the intestine was involved in 15.⁴ As in other iatrogenic surgical problems, many cases may have been unreported because of its medico-legal implications.⁵

The age range of patients compares with those of Obed and Wilson.⁴ It virtually represents women in the reproductive age group. These are either unmarried ladies not yet ready for motherhood or

married women who had either completed their family or were intending to space their children.

The ileum and sigmoid colon are common sites for these injuries.^{3,6-9} This is similar to our findings in this series. The relative fixity of these portions of the intestine has been suggested as a possible reason for this.⁷ Of note, however, is the fact that the jejunum can also be affected.

An important factor contributing to high morbidity is the delay in presentation. This has confirmed the findings of other workers in the subregion.^{3,4} In another work from the same centre, covering the same period as the one under review, we found that most patients with gut injury from other causes presented within twelve hours of injury.¹⁰ This delay, we believe, has to do with the restrictive abortion laws, the secrecy associated with abortion and the religious and social norms that do not accommodate abortion practice.

The surgical management of small intestinal injuries is fairly straightforward with minimal sequelae. Simple closure of the freshened edge of the perforation or a resection and anastomosis would suffice. However, an intestinal fistula may result from a missed perforation.³ This was the situation in one of the patients whose injury was in the jejunum. Systemic sepsis, uncorrected anaemia, protracted hypotension and poor surgical technique may all predispose to anastomotic dehiscence. It would also account for the high rate of abdominal wound dehiscence in this series.

The management of large bowel injury is more controversial.⁶ This is more so when the left colon is involved as in these patients. From the experience gained in the management of these unique injuries a simple colostomy appears the safest approach. Other options include primary repair, resection and primary anastomosis, and repair with a proximal protective colostomy. A simple colostomy is easier and faster to accomplish in these poor surgical risk patients. The argument for primary repair without colostomy cannot be sustained in view of the delay in presentation, the degree of peritoneal soilage, extent of injury and cardiovascular instability. A recent report suggesting that there are no contraindications to primary repair cannot justify this practice because the study included only patients seen

within 56 hours of injury.¹¹ The only patient who had primary repair of her colon injury had a breakdown of anastomosis and eventually had a colostomy. She had the highest morbidity in the series (DOH 163).

This paper has highlighted the significant contribution of induced abortion to penetrating bowel injury in females. The injuries are unique in that they presented late. A simple colostomy is suggested in the management of left colon wounds. Liberalisation of abortion laws, safer sexual practices, proper training in the conduct of termination of pregnancy and early recognition of complications will significantly reduce morbidity and mortality. Judicious use of antibiotics and a multidisciplinary approach to management is vital to good surgical outcome in such complicated cases.

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Introduction