SURGICAL HAZARDS OF ABORTION

by

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Termination of pregnancy in the first trimester is done by vaginal route by dilatation of the cervix of the uterus. But the operation though simple is associated with certain risks. The common dangers are haemorrhage and shock. Sepsis is not uncommon, but is usually limited to the uterus and its adnexae and is almost always controlled by antibiotic and chemotherapy. Special risks are the major surgical complications like perforation of the uterus, peritonitis, localised intra-abdominal and pelvic abscess, and intestinal and bladder injury and fistula.

Material and findings

The material includes 725 cases of vaginal termination of pregnancy done by conventional technique of dilatation of cervix and evacuation of uterus in our institution. Duration of pregnancy was 12 weeks or less in all these cases. During the same period 325 cases were admitted in this hospital with complication following attempted vaginal evacuation outside the institution. The complications reported here were met amongst these 1050 cases of vaginal evacuation of uterus.

Table I shows the site, clinical features and management of perforation of the uterus.

TABLE I

Perforation of Uterus During Vaginal Evacuation

Site	Cx. Dilator	Ovum forceps & curette	Ext. Hge.	Int. Hge.	Injury		Laparotomy	Hysterectomy done
					Intes.	Omentum		
Cervix:								
Lateral 2	2	–	2	2	–	–	2	2
Ant. and Post. 8	8	–	–	–	–	–	6	1
Body of uterus 11: 4		7	2	1	1	–	8	3
Total 21	14	7	4	3	1	Nil	16	4

Perforation of the Cervix

In 10 case, the perforation occurred at the level of the supravaginal cervix, 2 involved lateral wall, 6 anterior and 2 posterior wall of the cervix.

There was active external bleeding when the rent was in the lateral wall. Laparotomy revealed broad ligament haematoma and involvement of the uterine blood vessels on the affected side. Hysterectomy was done in both cases.

Abdomen was opened in 4 of the 6 cases

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of perforation involving the anterior and in 2 cases of perforation of the posterior wall of the cervix. There was no significant external or internal bleeding in them. Hysterectomy was done in 1 who had her family complete and perforation had occurred outside the hospital. In others, the accident was recognised promptly and the abdomen was opened. The uterus was evacuated by hysterotomy and the rent of the cervix was repaired. The postoperative recovery was satisfactory in all these cases.

In the remaining 2 cases of anterior perforation, the rent of the cervix was repaired by vaginal route.

Perforation of Body and Fundus of the Uterus

There were 11 cases in this series. The diagnosis was made by sensation of giving in of the uterine wall and the passage of abnormal length of the instruments. In 3, perforation occurred at the last phase of the operation. They were treated conservatively with full recovery. The abdomen was opened in 8 where the evacuation was incomplete and the perforation was caused by the dilator. In all cases the rent was barely distinguishable from the rest of the uterus. Evacuation was completed by abdominal hysterotomy and the rent of the uterus was stitched. There was one exception where the uterine wall was badly lacerated and the coils of the small intestine were extensively injured. Here hysterectomy and resection anastomosis of the gut was performed. The patient made uneventful recovery.

Table II shows the clinical features, treatment, findings on operation and the result in intra-abdominal and pelvic abscess.

Intra-abdominal Abscess

There were 7 cases where conservative

TABLE II
Abdominal and Pelvic Abscess

	No. of cases	Assoc. with perforation	Fever, pain, tenderness	Vomiting, distension, rigidity	Surgery		Complication		Surg. not done	Death
					Laparotomy	Colpotomy	Intes. fistula	Bladder fistula		
Abd.-pelvic abscess	7	5	7	7	5	–	1	1	2	2
Pelvic abscess	2	–	2	–	–	2	–	–	–	–
Total	9	5	9	7	5	2	1	1	2	2

treatment caused localisation of the peritoneal inflamation into a abdomino-pelvic mass. The pain, tenderness and mass became localised in the lower abdomen. The fever continued with wide swings. Tachycardia persisted and the patient was still ill and anxious. Laparotomy was done in 5 of the 7 cases, and the abscess was found to be associated with big rent at the fundus and body of the uterus. The open uterine cavity was lined by a dark, shaggy-looking membrane. The uterus, broad ligament, sigmoid colon and the coils of small intestine formed walls of the abscess cavity. In 1 the sigmoid colon showed injury to its outer wall but the lumen was not opened. The operation as a rule was restricted to repair of the uterine rent and drainage of the pus.

The post-operative period was stormy but they all survived. On the other hand, the 2 cases where laparotomy was not undertaken died of a progressive run down state.

Pelvic abscess

There were 2 cases of pelvic peritonitis with formation of pelvic abscess. This was associated with high fever, pelvic pain and tenderness, fullness of the pouch of Douglas and bulging of the posterior vaginal fornix. Posterior colpotomy was done with drainage of foul smelling pus. One of them also had an extraperitoneal pelvic abscess pointing at the lateral wall of the vagina. This was drained by a separate incision. Both patients made rapid recovery.

Fistulae

There were 2 instances of fistulae, one urinary and one faecal. Both followed laparotomy for peritoneal abscess though the operation in each case was limited to drainage of pus. However, the fistulae healed spontaneously in both the cases.

Discussion

Major surgical complications following vaginal evacuation of pregnant uterus are undoubtedly rare. But they are encountered from time to time. Most serious complications are perforation of the uterus, peritonitis with incomplete resolution and abscess formation, intestinal and bladder injury and fisulae. The management of these complications rests on the gynaecologist. As such they must be familiar with them.

Management of perforation of uterus depends on the site of perforation, on the instrument responsible and on the stage of the operation when the accident has occurred.

In the 2 cases where perforation was in the lateral wall of the cervix there was extend and intend bleeding of due to injury to the uterine blood vessels, requiring immediate laparotomy. Perforations in the anterior and posterior wall of the cervix should also be repaired as the rent does not close spontaneously and is likely to extend during subsequent childbirth.

Where perforation is through the corpus uteri and the evacuation is incomplete abdominal hysterotomy is the only safe recourse. On the other hand, if the accident has occurred at the concluding stage of the operation done under aseptic condition and has been recognised promptly, and there is no possibility of injury to intestines, the case is best treated expectantly. Small rent in the body and fundus of the uterus, caused by small ovum forceps or curette, is effectively closed by myometrial contraction. This was confirmed on laparotomy done for perforation of the body of uterus in 8 cases in this series.

Peritonitis is another serious complication. Resolution usually occurs with use of antibiotics. In a small number however

the resolution is incomplete and there is localisation and formation of abdomino pelvic abscess. The results in this series show that laparotomy under such circumstances should not be unduly delayed. The operation however should be limited to effective drainage of the pus.

Similarly, pelvic abscess should be suspected whenever sepsis following abortion does not respond to adequate antibiotic therapy. It is effectively treated by posterior colpotomy. This operation has retained its utility though it is not as often required now that pelvic abscess has become rare than in the past.

Intestinal and bladder injury are extremely rare in trained hands. Both cases of intestinal and bladder fistulae in this series, followed laparotomy, and was apparently due to devitalisation of their wall and oedema due to inflammation. The single instance of intestinal injury requiring resection anastomosis occurred where an untrained junior house surgeon did the operation all on his own.

Thus routine laparotomy to check intestinal injury in perforation of the uterus is hardly justified. This is specially so when the surgeon is confident that the intestine has not been pulled on or curetted.

Summary

Major surgical complications seen amongst 1050 cases of vaginal evacuation of the uterus in the first trimester of pregnancy are discussed.

There were 21 perforations of uterus. Hysterectomy was done in 3, in 1 along with resection anastomosis of the gut for asssociated intestinal injury.

There were 7 cases of intra-abdominal abscess. Laparotomy with drainage of the pus was done in 5. All of them survived. But the other 2 who were treated conservatively died.

There were 2 cases of pelvic abscess. Both improved after posterior colpotomy. The 2 cases of fistulae, one of the intestine and other of the bladder followed laparotomy for intra-abdominal abscess and healed spontaneously.