

UTERINE PERFORATIONS

by

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Perforation of the uterus is not an uncommon event in gynaecological practice. The causes of such perforations may be either traumatic or spontaneous, the former being far more common. Both the gravid and the non-gravid uterus may be involved in this pathology, but the incidences of perforations in the gravid uterus overshadow those of the non-gravid uterus. Though this condition can occur in the hands of a most expert surgeon, yet by and large the incidence and severity is inversely proportional to the skill and efficiency of the operator. The inflicted injury may not always lead to a very serious situation but on occasions, severe complications do occur and even hysterectomy may have to be performed to save the lives of the patients. Uterine perforation is an important cause of maternal morbidity and mortality, so its prompt recognition and effective management is very important. Fifty-seven cases of uterine perforation have been presented here to analyse the causes, management and the preventive measures.

Material and Methods

Fifty-seven cases of uterine perforations were treated in Eden Hospital, Cal-

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cutta during a period of 3 years, 1976 to 1978; 50 of them occurred in gravid uterus and 7 in non-gravid uterus, among 36128 obstetrical cases and 13023 gynaecological cases. The incidences, therefore, were 1 in 875 amongst total admissions, 1 in 720 amongst obstetrical cases and 1 in 1900 amongst gynaecological cases.

Analysis of Seven Perforations of Nongravid Uterus

Five perforations occurred during dilatation and curettage indicated for irregular vaginal bleeding, in 1 during dilatation and curettage for infertility and in the last case during loop removal and curettage. No sign of malignancy was detected in any of these 7 cases. Amongst these 7, 5 were aged above 35 and 2 (cases of infertility and loop removal) were aged below 30 years. Three of them were para 3, 1 was para 4, 2 were para 5 and 1 was nullipara. Perforations in all these 7 cases occurred in this hospital. Sites of perforations were body of the uterus. In all the cases without involvement of the cervix or broad ligament. Instruments responsible were cervical dilator for 6 and uterine curette in 1. One patient (loop removal) had signs of shock and internal haemorrhage; others did not develop any signs of shock although perforations were confirmed by easy introduction of uterine sound more than the

size of uterus without any resistance. Conservative treatment was undertaken in 6 and in 1 (case of loop removal) repair of rent along with ligation of tubes was done. There was no morbidity or mortality.

Analysis of Fifty Perforations of Gravid Uterus

Fifteen were aged below 20, 29 were in between 21-30 years, 5 were in between 31-40 years, and 1 was above 40 years. Nine of them were nullipara, 11 were para 1, 12 were para 2, 1 was para 3, 7 were para 4 and 10 were para 5 or above. Three of them were unmarried and others were married. Of these 50 cases, 16 were brought to this hospital following attempted criminal abortions outside by stick, root, dilator or other instruments with clinical evidences of uterine perforations. One case took admission after termination of pregnancy at a nursing home. Perforation in 1 case occurred during uterine exploration for P.P.H. on second day of puerperium at a nursing home. In other 31 cases, perforations took place in this hospital, 22 during suction evacuation, 7 during D & E operation for M.T.P., 1 during dilation and evacuation for incomplete abortion and 1 during craniotomy. The last one had spontaneous perforation due to perforating hydatidiform mole. Thus 49 were of traumatic origin and 1 was spontaneous.

Sixteen were below 8 weeks, 19 were in between 9 to 12 weeks, 6 were in between 13 to 16 weeks, 3 were in between 17 to 28 weeks (including the case of molar pregnancy), 1 was at term (case of craniotomy), 1 was during puerperium (case of P.P.H.) and 4 had lactational amenorrhoea, where perforation occurred during suction evacuation for misdiagnosed pregnancy.

Plastic or polythene curette (Karman's variety) was responsible for 23, ovum forceps for 7, uterine curette for 2, cervical dilator for 4, perforator for 1 and stick, root or other objects for 12 cases.

Cervix was affected in 8 and body of the uterus in 42. Amongst the injuries of the body, right cornu alone was the site in 2, left cornu alone in 7, both cornu in 1, posterior wall in 6, anterior wall in 4 and fundus in 22 cases.

Associated Injuries: Associated injuries were present in 28 cases, of which broad ligament haematoma in 8, (in all the cases of cervical injuries), intestinal injuries in 16 (small intestine in 13, transverse colon in 1, sigmoid colon in 2) and omental injury in 4 cases. Eight cases of broad ligament haematoma occurred in 4 cases of M.T.P. operations (suction evacuation, 2 and D & E 2), and 4 were cases of criminal abortions. Intestinal injury was associated with cases of criminal abortions.

Clinical Presentations: Fifteen cases of criminal abortions with perforations amongst a total of 17, presented with peritonitis and septicaemia, remaining 2 cases were admitted with haemorrhage and shock. One of them came with protrusion of greater omentum outside the introitus. All other cases presented with shock or signs of intraperitoneal haemorrhage. Eight cases had palpable broad ligament haematoma.

Time Interval Between Perforation and Operation

Out of 50 cases of perforations of gravid uterus, 33 had surgical interventions within 4-8 hours. Amongst 17 cases of criminal abortions 4 were admitted after 3 days, 4 after 4 days, 5 after 5 days, 2 after 8 days and 2 after 15 days of interferences.

Treatment

All these 50 cases needed surgical interferences: laparotomy and repair of rent in 9, repair of wound by laparotomy along with repair of intestinal injury in 2, repair of rent along with resection anastomosis of intestine in 1, repair of rent and left sided salpingo-oophorectomy for broad ligament haematoma in 1, repair of rent along with ligation of tubes in 13, anterior hysterotomy and repair of wound in the posterior wall of the uterus in 2, laparotomy and drainage of pus in 2, hysterectomy in 20 (subtotal in 13 and total in 7); 9 of these hysterectomies were combined with repair of intestinal injuries in 8 and resection anastomosis in 1.

Morbidity and Mortality Amongst these Fifty Cases

Morbidity of significance was present in 8 cases; burst abdomen in 1, non-union of abdominal wound in 2, urinary tract infection in 1, and paralytic ileus or peritonitis following laparotomy in 4.

There were 7 deaths amongst these 50, 6 following criminal abortions and 1 following attempted M.T.P. outside by D & E. Of these 7 cases, 4 were subjected to subtotal hysterectomy 1 had laparotomy with drainage of pus and 2 had total hysterectomy.

Comments

Fifty-seven cases of uterine perforations have been presented, 50 of them occurred in gravid uterus. Their early detection is important to reduce morbidity and mortality.

Occasional uterine perforations may be an almost invariable complication of M.T.P. by vacuum aspirator or any other forms of D & C operations. Moberg (1976) reviewed 2978 cases with an incidence of perforation as 0.64%.

Perforations of gravid uterus occurring after attempted criminal abortions are more dangerous than those occurring during routine gynaecological operations, because of the presence of sepsis. In this series, 6 deaths occurred amongst 17 such cases. Probably their late admissions were responsible for the spread of infection and septicaemia. Wider publicity as well as availability of hospital facilities may help in the reduction of such mortalities in future.

In this series, only 20 cases were either nullipara or primipara, hence avoidance of pregnancy is also an important avoidable factor.

The type of instruments are also important as majority of perforations were due to ovum forceps, 8 m.m. Karman's curette, dilator, stick or root.

Proper screening of the cases of terminations is also essential, as 4 cases of lactational amenorrhoea were misdiagnosed as carrying pregnancy and perforations occurred during S & E operations.

Perforations of uterus may sometimes be associated with intestinal injuries.

Though hysterectomy is indicated in presence of sepsis, in younger patients one has to consider repair of rent. However, the risk of rupture during subsequent pregnancy should be kept in mind and the patient should be advised accordingly.

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