

Uterine Perforation Complicating Vesico-Vaginal Fistula Repair: A Case Report

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Abstract

Obstetric fistula is a problem among women in developing countries. The patient presented with intra-cervical fistula following Caesarean section for prolonged obstructed labour. The fistula was repaired vaginally. She developed features of intra-peritoneal haemorrhage after repair and had exploratory laparotomy which revealed a perforated uterus. She had uterine repair and was later discharged continent. Uterine perforation is not a known complication of vesico-vaginal fistula repair. It may have resulted from sounding of the uterus and introduction of intrauterine catheter using a metal introducer. Subsequent inflation of the balloon with fluid may have increased the uterine injury. Preparation for blood transfusion should be an important part of management of women with intra-cervical fistula.

Key words: Intra-cervical fistula; Repair; Uterine perforation; Vesico-vaginal.

INTRODUCTION

Obstetric fistula remains a public health problem in the low- and middle-income countries where childbirth is associated with a lot of hazards.^[1,2] The determinants are ignorance, poverty, illiteracy, harmful traditional practices, poor general health infrastructure and lack of access to quality maternity care.^[3-6] The victims suffer devastating psycho-social problems such as shame, stigmatization, marital disharmony, loss of dignity, hopelessness, depression and suicidal ideation.^[7] Intra-cervical fistula occurs when there is a communication between the urinary bladder and the cervical canal. It is a common finding in women who underwent Caesarean section after prolonged obstruction labour. It is the commonest variety of fistula seen in Southern Nigeria accounting for 68% of all repairs.^[8] Known complications of fistula repair include haemorrhage, ureteric injury, urinary tract infection, sepsis, vaginal stenosis, cervical stenosis, amenorrhoea, infertility, reduced bladder capacity, post-operative stress incontinence and residual fistula formation.^[9] Uterine perforation is not a known complication of vesico-vaginal

fistula repair. We present a patient who had uterine perforation with life-threatening haemorrhage following repair of intra-cervical fistula.

CASE PRESENTATION

We report a 32 year-old Para 4+⁰, 4 alive who was referred with complaints of leakage of urine after a Caesarean section performed 3 months earlier. Indication was prolonged obstructed labour. The leakage was noticed two days after the surgery. Examination revealed leakage of urine from the cervical canal. A diagnosis of intra-cervical vesico-vaginal fistula was made. She had repair of the fistula vaginally. Twenty-four hours after the repair, she was observed to be in shock. Urgent packed cell volume was 12%. Abdominal ultrasound showed free fluid in the abdomen.

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A diagnosis of hypovolaemic shock secondary to intra-peritoneal haemorrhage was made. She was resuscitated and transfused. She had an emergency exploratory laparotomy with findings of haemoperitoneum of about 3.5 litres. There was a fundal tear, about 6cm long, which was repaired with vicryl 2 sutures. She received a total of five units of blood. She was stable postoperatively. On the post-operative day 14, her dye test was negative and she was discharged from the hospital. She was seen a month later was continent.



Figure 1. Uterine perforation before repair



Figure 2. Uterus after repair

DISCUSSION

Intra-cervical fistula occurs when there is a communication between the urinary bladder and the cervical canal. It usually results from injuries to the urinary bladder during Caesarean section for prolonged obstruction labour. It may also complicate Caesarean sections done in the

second stage of labour. It is the commonest variety of fistula found in Southern Nigeria accounting for 68% of all obstetric fistulas repaired.^[8] In a study in Bangladesh, 67% of fistulas repaired resulted from Caesarean section and 80% were high fistulas.^[10] A rise in occurrence of high fistulas resulting from Caesarean sections has also been reported in Ethiopia.^[11]

There are different procedures for repair of intra-cervical fistula, depending on how high the fistula is. In this case, the repair was done vaginally, although some authors prefer the abdominal approach. The procedure carried out involved certain manipulations such as introduction of the uterine sound into the uterus, insertion of a size F8 Foley catheter into the uterine cavity using a metal introducer and inflation of the catheter balloon with fluid. This will ensure patency of the cervix post-operatively thereby preventing cervical stenosis or occlusion and haematometra.

Uterine perforation is not a known complication of vesico-vaginal fistula repair. There are few possible explanations for the perforation in this case. It could have resulted from introduction of the uterine sound or use of a metal introducer used to insert the Foley catheter into the uterine cavity before the fistula repair. The perforation may have been extended by inflation of the balloon in the uterine cavity with fluid to retain the Foley catheter. The perforation was repaired and she was transfused. Vaginal surgeries involving introduction of instruments into the uterus may cause perforation. Intra-cervical fistulas have been associated with increased risk of blood transfusion compared with other types.^[12] Hence blood should be made available while preparing for the repair.

In conclusion, repair of intra-cervical fistula may rarely be complicated by uterine perforation with life-threatening haemorrhage. This could result sounding of the uterus followed by insertion of intrauterine catheter with a metal introducer and inflation of the balloon. Availability of blood should be part of pre-operative preparation for women with this type of fistula.

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