

Case Report

Total Uterine Necrosis-A Case Report with Review of Literature

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Abstract

The use of compression sutures in cases of massive postpartum haemorrhage uncontrolled by medical management gives an option to the women for future child bearing and menstrual function. A case is being reported wherein patient was referred in prolonged second stage of labour with failed forceps and intrapartum fetal demise. Emergency caesarean section was done and Hayman's sutures were placed for massive atonic PPH with failed medical management. Patient developed subinvolution of uterus with pyoperitoneum. Patient refused surgical intervention and later presented with necrosed uterine wall hanging through the introitus. Exploratory laparotomy showed total uterine necrosis with pyoperitoneum. A total hysterectomy with right salpingo-oophorectomy was done.

Keywords: postpartum haemorrhage, uterine compression sutures, pyoperitoneum, uterine necrosis.

Introduction

The various modalities for the management of atonic postpartum haemorrhage following caesarean section includes uterine massage, with administration of uterotonic drugs namely methyl ergometrine, oxytocin, prostaglandin F_{2α} and prostaglandin E₁. Patients not responding to these medical management are further subjected to uterine packing, balloon tamponade, stepwise devascularisation of the uterus, hypogastric artery ligation, uterine artery embolisation and finally a caesarean hysterectomy.

Such procedures may deprive the woman of future child bearing capacity. However procedural advancements like uterine compression sutures namely B-lynch, Hayman, Cho square sutures or Gunasheela global or circumferential sutures may give an opportunity

to the woman for future child bearing and menstrual function. One of the dreaded complication of uterine compression sutures is partial or complete uterine necrosis.

Case report

A 24 year old woman with G₂P₁L₀ in 40 weeks gestation was admitted in 2nd stage of labor with h/o failed forceps following obstructed labor and intrauterine fetal demise. Following admission to a rural public hospital for labour pain a vaginal delivery was attempted including forceps application. In view of failed forceps with obstructed labour, the woman was referred to the medical college hospital. The first pregnancy four years ago had ended in intrauterine fetal demise at term. The foetus was delivered vaginally at a government hospital.

The cause of IUD is not known. In the present pregnancy the antenatal period in all the trimesters were uneventful. At admission the patient was drowsy, dehydrated, very pale and in shock. On palpating the abdomen the uterus corresponds to term, contractions were felt and foetal presentation was not made out due to distended bladder. Bandel's ring was

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present and fetal heart sound was absent. There was extensive vulval edema, whole of perineum was tattered and torn with vaginal and paraurethral lacerations (Fig 1). Cervix was fully dilated, with station at '-1' and caput ++. Bladder was catheterized and haematuria was observed.

Under general anaesthesia the episotomy wound, perineal and paraurethral tears were sutured. A still born girl child weighing 3 kgs was extracted through lower segment caesarean section. Intraoperatively a massive atonic PPH occurred and failed to respond to medical management. Hence, 05 Hayman stitches were applied and four units of packed RBCs and six units of FFP was given. On the third post operative day abdominal distension with sluggish bowel sounds were noted. Uterus was subinvolved and corresponded to 18 weeks size. There was foul smelling vaginal discharge, the perineum was appearing healthy and patient was afebrile. Transcervical endometrial cultures grew *Klebsiella*. USG of

abdomen and pelvis revealed subinvolved uterus, collection and air echoes in the endometrial cavity and minimal ascites. Injection piperacillin and tazobactam was administered and daily vaginal toileting was done. On the ninth post operative day as the abdominal distension persisted USG and MRI of abdomen and pelvis was undertaken and showed enlarged uterus with multiple pockets of air and fluid within endometrial cavity. Of the two collections with multiple septations noted one measured 17.8×7.9×9 cm at right iliac and lumbar region and another 10.9×7.8×7.1 cm on the left of uterus extending from left iliac fossa to left hypochondrium. They were suggestive of intramyometrial abscesses and also possibly pus in the peritoneal cavity. Patient was advised to undergo a re-laparotomy, but refused and got discharged against medical advice.

A month after LSCS, the patient presented with foul smelling vaginal discharge and mass per vagina since two days. She was afebrile and vitals were stable. The uterus of



Fig 1. Lacerated perineum



Fig 2. Necrosed anterior uterine wall brought out from vagina and cervix

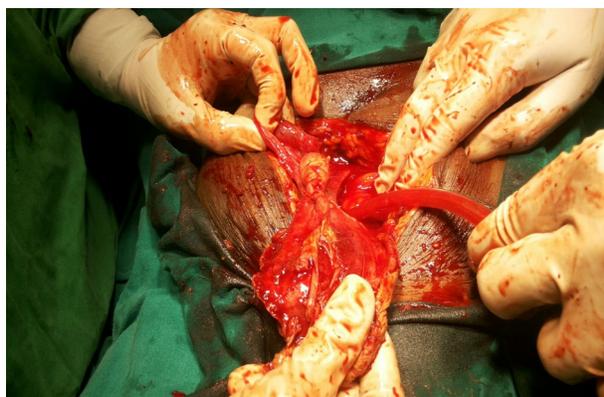


Fig 3. Necrosed posterior uterine wall

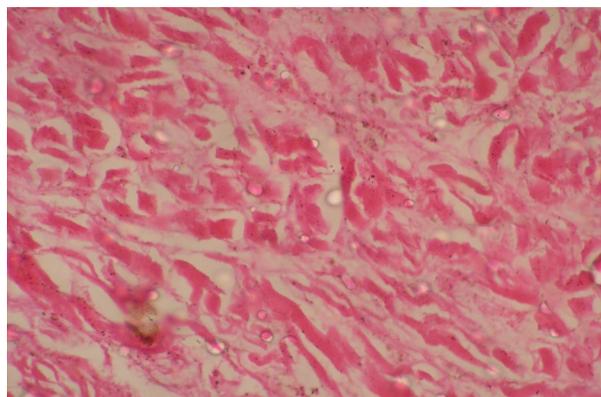


Fig 4. Autolyzed myometrial tissue

16 weeks size was soft, doughy and non-tender. A long and wide necrotic tissue of 8X4 cms protruding out of cervix into the vagina was observed with purulent discharge. Hence an exploratory laparotomy was undertaken. Peroperatively the peritoneal cavity was filled with pus and restricted to lower abdomen. The anterior wall of uterus was completely necrosed and protruded into the vagina through the cervix (Fig 2). The adhesions between the uterus, omentum and bowels were released and the posterior uterine wall was also found to be necrosed (Fig 3). A subtotal hysterectomy with right sided salpingo oophorectomy was performed. Peritoneal wash was given and the abdomen was closed with a drain in situ. The post operative period was uneventful. The histopathological examination found autolyzed endometrium, autolyzed and necrosed myometrium, hydrosalpinx and an unremarkable ovary (Fig 4).

Various outcomes have been reported following applying uterine compression sutures to stop PPH. Partial uterine wall necrosis following Cho haemostatic sutures, B Lynch suture and both combined have been reported.^[1-3] Severe pelvic adhesions and uterine deformation was seen four years following B-Lynch sutures put for a massive PPH.^[4] A successful pregnancy outcome has been reported in a woman who had undergone B Lynch compression suture ten years ago.^[5] Erosion of B-Lynch sutures through the uterine wall has been reported in a nineteen year old primigravida.^[6] Total uterine necrosis has been reported 17 days after applying B-Lynch sutures for PPH following an emergency LSCS.^[8] A retrospective case study of a series of 33 women who were applied with uterine brace (B-Lynch) sutures, found that eight of them underwent hysterectomy on the table for uncontrolled PPH.^[7]

The case presented is unique as even following development of uterine necrosis and myometrial abscesses in the week following the procedure, the patient was afebrile and went home refusing laparotomy. Laparotomy was performed a month after the primary procedure when she reported back with vaginal discharge and vaginal protruding of necrosed

tissues. The cause for the total uterine necrosis could be attributed to the tight Hayman sutures and the possibility of severe endometritis following the failed attempt to deliver the obstructed foetus through forceps.

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