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CASE REPORT

CASE REPORT - CHRONIC UTERINE INVERSION: A RARE COMPLICATION OF LABOUR

Parinita Khot[1], Nitin Kshirsagar[2], Manisha Laddad[3], Sanjay Kumar Patil[4], Gauri Shinde[5]

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ABSTRACT: Chronic uterine inversion is a complication of mismanaged labour. It is a life threatening complication and an obstetric emergency. Early diagnosis, prompt and aggressive management reduce the morbidity and mortality. Incomplete uterine inversion left unattended or unnoticed may lead to constriction ring formation and may require surgical intervention. We report a case of chronic uterine inversion which was reduced by Haultain's repair.
KEYWORDS: Chronic uterine inversion, Haultains repair.

INTRODUCTION: Uterine inversion is a condition in which the fundus of the uterus prolapses through the cervix thus turning uterus inside out.it can be puerperal or non-puerperal. It is a rare but life threatening complication of vaginal delivery. The reported incidence of inversion is 1 in 550 to 1 in several thousand vaginal deliveries.[1-3] Inversion may be acute or chronic. Chronic inversion is associated with benign or malignant tumours of the uterus. Chronic inversion may also be a sequel to obstetric inversion left unnoticed or uncared.

CASE REPORT: A 23 yr primipara was referred to Krishna hospital of medical sciences, deemed university, Karad with chief complaints of p/v bleeding and polymenorrhea since 3 months. She also complained of weakness since 2 months. She had undergone full term ventouse assisted vaginal delivery 8 months back at government hospital,karad. She gives history of fundal pressure being applied intrapartum. Following delivery, she started complaining of increased bleeding during menstruation and frequent cycles after 2 months.

On examination, patient was thinly built and averagely nourished. Patient was pale and pulse was 110/min. B.P was 110/60mm hg. Abdominal palpation elicited tenderness in suprapubic region. Per speculum examination revealed active bleeding. A grossly congested and hyperaemic 5-6 cm mass with smooth surface was seen coming out of os. On per vaginal examination a globular mass was felt projecting from the cervix, up to the level of the introitus. Uterus could not be felt separately from the mass. Consistency was soft and was bleeding on touch.

Patient was investigated further for preoperative evaluation, patient's haemoglobin was 5.8gm%. Other biochemical and haematological parameters were within normal limits. Ultrasonography revealed a well-defined iso to hyper echoic, moderately vascular mass in cervical lumen protruding out of external os; fundus and body of uterus not separately identified. Magnetic resonance imaging of pelvis confirmed uterine inversion. In view of anaemia patient was transfused 3 units of packed red cells. Her post transfusion hb increased to 10.8gm%

Patient was then posted for laprotomy and reduction of uterine inversion by Haultains method. Intraoperative findings- uterus showed complete inversion. Fundus coming out of os but not outside vagina. Cervical constriction ring was present {Figure 1}. Incision was taken on the posterior

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surface of the constriction ring. The inverted fundus was then pushed up from below with an assistant passing a finger through the vagina. Inversion was thus corrected {Figure 2}.incision on the uterus was sutured with vicryl no 1 with continuous interlocking sutures in double layer. Haemostasis confirmed. Round ligament plication was done as round ligament were overstretched due to inversion. It would further help in maintaining the normal position of the uterus.

USG FINDINGS

Fig. 1: Intraoperative Photo of Inversion

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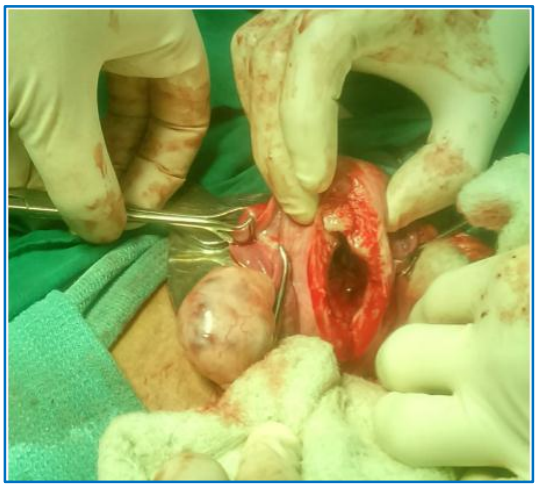

Fig. 2: Reduction of Inversion with Posterior Incision on Constriction Ring

DISCUSSION: Acute puerperal inversion is a rare complication of mismanaged labour and may lead to haemorrhage and shock if left untreated.

CLASSIFICATION OF UTERINE INVERSION ACCORDING TO SEVERITY[4]:

First Degree: Inversion of the uterus is intrauterine, fundus remains within the cavity.

Second Degree: Complete inversion of the uterine fundus through the cervix.

Third Degree: Total inversion, with the fundus protruding through the vulva.

Forth Degree: The vagina is also involved with complete inversion through the vulva.

CLASSIFICATION ACCORDING TO THE TIMING OF EVENT[4]:

Acute: Occurring immediately or within 24 hours;

Sub-acute: Occurring after 24 hours and before four weeks.

Chronic Inversion: Occurring more than four weeks, after the delivery.[5] The prevalence of each class of inversion is 83.4%, 2.62% and 13.9% respectively.[6,7]

Chronic uterine inversion due to an incomplete or uncorrected puerperal inversion may present months after the delivery as in our case. Predisposing factors towards inversion are multiparity, short cord, adherent placenta, and excessive fundal pressure during second or third stage of labour, excessive cord traction or fundal myomas. Connective tissue disorders such as Marfans and Ehlerdanlos syndrome are also implicated.

Patient usually presents with irregular vaginal bleeding or chronic vaginal discharge, weakness and backache. She may give history of postpartum haemorrhage. On examination patient would be pale, an infected haemorrhagic mass is seen protruding through vagina. Differential diagnoses of inversion includes infected polyp, prolapsed uterus and malignant neoplasm. When diagnosis is uncertain an ultrasonography and magnetic resonance imaging are done. In ultrasonography hyper echoic mass in vagina with central hypo echoic H shaped cavity in Trans image is seen.[8]

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Management of uterine inversion should be step-wise, comprising of non-surgical and surgical approaches. The first step is summoning appropriate help, followed by resuscitation and stabilisation of the patient in cases of acute inversion an attempt should be made to immediately reposit the uterus through the vagina, this method is called as Johnson's method.[9]Hydrostatic reduction by rusch balloon catheter can also be tried. A chronic inversion usually requires surgical management. The walls of the chronically inverted organ are in a state of complete involution with retraction and have little elasticity. Therefore the resistance of a constricting ring and that of the inelastic walls has to be overcome along with the rigidity of the retaining.

Myometrium which cannot be overcome.[10]

The available operations for the treatment of chronic inversion are Haultains method and Spinelli's and Kustner's technique. Spinelli and Kustner involve replacing the fundus through anterior and posterior transections respectively through vaginal route. Haultains method is done abdominally. Each round ligament from slit is pulled upwards while an assistant pushes the fundus upwards through vagina. Constriction ring formed by uterine walls is divided posteriorly by taking an incision. Through the incision forefingers are passed below the fundus and pressure exerted till reduction is secured. Incision over posterior wall is sutured in 2 layers. Recurrence is rare in subsequent pregnancies if good obstetrical care is given.[10] Haultain himself has reported good pregnancy outcomes following the correction. Since our patient was desirous of further child bearing, we hope the same for her and she is currently under follow up.

Similar case of chronic inversion have been reported in belgaum medical journal, belgaum institute of medical sciences, 2013, where chronic inversion was repaired by Haultains repair. Another case was reported in Sheffield where acute inversion was repaired by Rusch balloon catheter in 2010.

Similarly another case of chronic inversion was reported in the Pan Africanmedical journal in 2012 where after reposition by Haultains repair patient again presented with inversion after 4 weeks which was managed by continuous digital pressure under oxytocics.

CONCLUSION: Acute uterine inversion is a serious complication of mismanaged labour and signs of incomplete inversion should be looked for after delivery to prevent its sequel into chronic inversion and to prevent associated morbidities.

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AUTHORS:

1. Parinita Khot
2. Nitin Kshirsagar
3. Manisha Laddad
4. Sanjay Kumar Patil
5. Gauri Shinde

PARTICULARS OF CONTRIBUTORS:

1. Resident, Department of Obstetrics & Gynaecology, KIMSDU, Karad.
2. Professor, Department of Obstetrics & Gynaecology, KIMSDU, Karad.
3. Associate Professor, Department of Obstetrics & Gynaecology, KIMSDU, Karad.
4. Professor, Department of Obstetrics & Gynaecology, KIMSDU, Karad.
5. Assistant Professor, Department of Obstetrics & Gynaecology, KIMSDU, Karad.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Parinita Khot,
Takshila, 31/B, Flat No. 35,
Mahakali Caves Road,
Andheri East, Mumbai-400093.
E-mail: parinita.khot@gmail.com

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