

Chronic Nonpuerperal Uterine Inversion

Rama NC¹, Ramadevi V², Mamatha N³

^{1,2,3}Professor
Department of Obstetrics
and Gynaecology
Chalmeda Anand Rao
Institute of Medical Sciences,
Karimnagar - 505 001.
Andhra Pradesh, India

CORRESPONDENCE:

¹Dr.N. C. Rama,
MD(OBG), DGO
Professor
Department of Obstetrics and
Gynaecology, Chalmeda
Anand Rao Institute of
Medical Sciences,
Karimnagar - 505 001.
Andhra Pradesh, India
E-mail: ramavdr@gmail.com

ABSTRACT

Chronic nonpuerperal uterine inversion is an extremely rare situation. It is often encountered as a diagnostic challenge in gynaecology. We describe here a 38 year-old woman with chronic nonpuerperal uterine inversion due to a fundal leiomyoma. She was subsequently treated with abdominal hysterectomy followed by removal of mass vaginally. In addition to surgical exposure, laparotomy also helped in the taking care of distal urinary collecting system and in the management of haemorrhage.

Keywords: uterine inversion, nonpuerperal, management, surgery

INTRODUCTION

Chronic uterine inversion of the nonpuerperal uterus is an uncommon event, reported approximately 100 times in the literature since 1940^[1]. Chronic nonpuerperal uterine inversion is often associated with uterine pathology. Uterine leiomyomas tend to be the most common factor^[1,2], with occasional reports of inversion associated with uterine neoplasm and endometrial polyps. The major factors that contribute to its occurrence are: tumour attachment site, thickness of the tumour pedicle, tumour size, thin uterine wall and dilatation of the cervix^[3]. Due to the diversity of the underlying cause and the presentation of the case, assessment and treatment need to be tailored individually.

The following is a case report of a woman who presented to hospital with nonpuerperal uterine inversion secondary to a prolapsed necrosing submucous fibroid. Most of the surgical methods described for treating chronic uterine inversion involve reinverting the uterus before proceeding to hysterectomy. Surgery without reinverting the uterus, poses unique challenges to the surgeon.

CASE REPORT

A 38-year old woman, who had two term vaginal deliveries, was presented with dragging type of pain

abdomen associated with low backache. History of constipation and urinary retention since one day and foul-smelling brownish discharge since 15 days. There is a history of menorrhagia and dysmenorrhea 3 months back. On examination, she was pale, ill and her lower abdomen palpation was soft and non-tender. On gynaecological examination, 8x10cms firm, non-tender globular irreducible mass with focal necrotic and sloughing surface was filling the vagina associated with foul smelling discharge. The cervix could neither be seen nor palpated. Per rectal examination revealed solid mass felt through anterior rectal wall.

Ultrasonographic examination could not identify the uterus in its position and prominent vascular structure in the pelvis with periuterine lymphnodes was noted. Intravenous pyelograph showed normal course of ureters and renal excretory function. Multiple biopsies from the surface of the mass has been taken to exclude malignancy, no satisfactory report could not be obtained due necrotic nature of the tissue. MRI reported prolapsed degenerated fibroid or uterine sarcoma. Diagnosis of chronic uterine inversion was established with associated pathology of fundal fibroid.

Pre-operative care with broad-spectrum antibiotics, blood transfusions for anaemia correction and daily douching of inverted uterus covering with povidone iodine soaked gauze was done. Surgical treatment was planned.

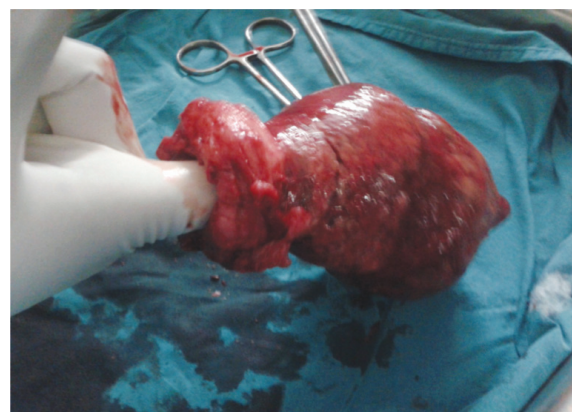


Figure 1: Postoperative period was uneventful and patient was asymptomatic at followup periods. Histology confirmed a benign leiomyoma with hyaline degeneration with foci showing haemorrhagic infarction and necrosis.

On table, patient was examined under general anaesthesia in lithotomy position after emptying the bladder. Due to the large size and firm consistency of the sessile submucosal fundal fibroid, it could neither be repositioned back nor pulled down through the vaginal introitus. Therefore we decided to do laparotomy. After packing the bowel away, pelvic inspection showed a cup shaped depression in the region of uterine fundus drawing the bilateral tubes and ovaries along with it. Considering the age and parity of the patient and the gangrenous nature of the inverted uterus, we proceeded with abdominal hysterectomy while continuous pressure was being maintained on the vaginal mass from below by an assistant. Both the round ligaments are clamped, cut and ligated. After dissecting the utero-vesical fold anteriorly, bladder is pushed away from the uterus. On inspection, we found the left adnexa was congested, so we clamped infundibulo-pelvic ligaments on that side, preserving the ovary and tube on the other side. Assistance of pushing the mass from below helped us to identify the uterine vessels which were clamped, divided and ligated. The angles of vagina were held, clamped and divided. The cervico-vaginal junction was opened anteriorly which was extended all around which made us feasible to push the mass and adnexal contents more downwards, delivering it vaginally. Vaginal walls were approximated, haemostasis secured. After peritoneal toileting, abdomen was closed in layers.

DISCUSSION

Chronic non puerperal uterine inversion is a very rare condition^[4]; Uterine leiomyoma were known to cause uterine inversion in 78.8%-85% of cases and was the most common cause^[1,5].

The clinical diagnosis of chronic inversion depends on

finding a mass coming through the cervix, without definite margins of a cervix, and the absence of the uterine body during bimanual or rectal examinations.

Preoperative evaluation with ultrasonographic examination is used. Magnetic Resonance Imaging (MRI) is also helpful in the diagnosis. Sagittal views demonstrate a U-shaped uterine cavity, while axial images show a bull's eye configuration^[6,7].

Many surgical techniques have been described to treat chronic non puerperal uterine inversion. The efficacy of non-surgical avelings repositors is not clearly known. Huntington and Haultain are the common abdominal approaches. Huntington procedure involves grasping the round ligaments and the uterus below the area of inversion and slowly pulling up repeatedly until the uterus is reinverted. Haultain procedure is where vagino-cervical ring is incised posteriorly and carried up the posterior wall of the uterus until it can be reinverted to its normal anatomy. Then the uterine incision can be repaired or followed by hysterectomy.

Kustner and Spinelli procedures are the commonly used vaginal approaches. Kustner procedure is entering the pouch of Douglas vaginally and splitting the posterior aspect of the uterus and the cervix, and reinverting the uterus. In Spinelli operation incision is made on the anterior aspect of the cervix and then the uterus is reinverted. After both the procedures the uterine incision needs to be repaired after repositioning, if the fertility is wished or otherwise can be proceeded for routine vaginal hysterectomy.

In the present case, the tumor was observed through the vulva but unable to approach vaginally. It was impossible to reinvert the uterus, leaving us with the only option of trying for an abdominal hysterectomy. Due to concern

for the location of the ureters because of the dilatation of the cervix, and the inability to revert the uterus, we employed an abdominal approach. It helped to confirm firstly that there were no contents in the inverted uterus, and secondly, it helped us to restore hemostasis from the reinverted pedicles. Abdominal hysterectomy was performed, with removal of the entire uterus along with mass vaginally due to its large size. Surgeons should be aware of this potential complication of internal bleeding from the reinverted pedicles while operating on chronic uterine inversions.

CONCLUSION

Chronic uterine inversion is a rare condition that is difficult to manage even for the experienced gynecologist. Biopsy of the mass is prudent given its occurrence with uterine malignancy. In chronic inversion secondary to a fibroid, infection of the fibroid and uterus should be suspected. USG and MRI usually lead to definitive diagnosis and the treatment is surgical that includes both abdominal and vaginal approaches. An attempt at vaginal restoration and removal has been reported but is difficult. Abdominal hysterectomy may be necessary, taking care to locate the distal ureters, with intraoperative cystoscopy to ensure bladder and ureteral integrity^[7]. Nonpuerperal uterine inversion needs preoperative diagnosis and histology especially in chronic inversion may be due to malignancies, which would aid in planning proper treatment^[8,9]. However, need for preservation of fertility

and excluding possible malignancy might be important in selected cases.

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