CASE REPORT

AN EXTREMELY RARE CASE OF CHRONIC NON-PUERPERAL UTERINE INVERSION TREATED BY MYOMECTOMY PRECEDING VAGINAL HYSTERECTOMY

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ABSTRACT: Chronic non-puerperal uterine inversion is an extremely rare clinical situation. We report a 56 year-old woman with chronic nonpuerperal uterine inversion due to a fundal leiomyoma. She was treated with myomectomy followed by vaginal hysterectomy without reinverting the uterus. We emphasize use of pre-operative pelvic ultrasonography for excluding possible bowel loops in the inverted uterus and use of intravenous pyelography for confirming normal ureteric course. We also emphasize that performing myomectomy first helped to partially reposit the uterus which made vaginal hysterectomy easier.

KEY WORDS: Uterine inversion; non-puerperal; myomectomy.

INTRODUCTION: Chronic non-puerperal uterine inversion (CNPUI) is an extremely rare clinical situation; On average a gynaecologist may only see one case in their entire life. Due to the diversity of the underlying cause and the presentation of this condition, assessment and treatment need to be tailored individually. Most of the surgical methods described for treating CNPUI involve reinverting the uterus before either repairing the incisions made or proceeding to hysterectomy. Vaginal hysterectomy for CNPUI, without reinverting the uterus, poses unique challenges to the surgeon. We report a 56 year-old woman with chronic non-puerperal uterine inversion due to a fundal leiomyoma. She was treated with myomectomy followed by vaginal hysterectomy without reinverting the uterus.

CASE REPORT: 56 years old postmenopausal tubectomised female with four term vaginal deliveries in past presented with foul smelling vaginal discharge and mass coming out of vagina since 6 months. She had menometrorrhagia with dysmenorrhea for 3 years followed by menopause since 3 years. On examination she looked cachexic and extremely pale. She had edema of right leg upto knee. Abdominal and systemic examination were normal. Gynecologic examination revealed an irreducible mass with a sloughing surface protruding through the introitus. At the apex a firm pale spherical mass with a different texture was noted. Fingers could be approximated above the mass. Cervix could not be identified separately during vaginal examination. On sound test (passing of uterine sound through cervix) no uterine cavity was demonstrable. Mass could be only partially reposit back and minimal bleeding seen on such attempts.

Pelvic ultrasonography could not identify the uterus in the pelvis. U shaped cavity noted in region of uterus in pelvis without any bowel loops. Diagnosis of chronic uterine inversion was established with associated pathology of fundal fibroid. Foleys catheter was inserted. Intravenous antibiotics were started. Anemia corrected with 5 pint HRBC. Inverted uterus was covered with povidone iodine & MgSO₄ soaked gauze twice daily. Venous doppler of right leg done for edema

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showed mild insufficiency of deep venous valves without venous thrombosis. Intravenous pyelography was done to assess course of ureter preoperatively. Vaginal Hysterectomy was planned with high risk for deep venous thrombosis.

Pre-operative USG pelvis obtained to rule out loops of bowel in pelvic peritoneum and to locate the bladder at the cervico-fornical region before making the incision. In theatre, patient was examined under anesthesia in lithotomy position after emptying the bladder with a foley catheter. Isolated vaginal approach was decided for anesthetic risk (compression stocking were applied to both legs). First myomectomy done & then excess mucosa excised. After myomectomy because of release of traction by leiomyoma uterus could be partially repositioned. Due to partial reposition it was possible to identify the bladder extent in anterior vaginal wall and to dissect bladder away from cervix. Partial reposition also helped to access the top pedicles easily because of which vaginal hysterectomy was completed without much difficulty.

Postoperative period was uncomplicated and patient was asymptomatic at six weeks and six month control examinations. Histology confirmed chronic uterine inversion with the fibroid.

DISCUSSION: CNPUI is very rare; indeed in the literature, there is no figure about the incidence of its occurrence. Uterine leiomyoma, leiomyosarcoma, rhabdomyosarcoma, endometrial polyps, endometrial carcinoma, and uterovaginal prolapse has been described as possible preceding factor. Uterine leiomyoma were known to cause uterine inversion in 78.8%-85% of cases and was the most common cause [1-2].

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. Openings of the fallopian tubes may be identifiable on its endometrial surface. Many authors have used ultrasonographic examination as the first line of investigation. Indentation of the fundal area and a depressed longitudinal groove extending from the uterus to the centre of the inverted uterus are the two signs described in relation to the chronic uterine inversion [5].

Many surgical methods have been described to treat CNPUI. The efficacy of the nonsurgical methods are not clear. Huntington and Haultain are commonly used 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.

Mwinyoglee et al. reported a CNPUI which was treated with vaginal hysterectomy without reinverting the uterus. They had to use USG to locate the bladder at the cervico-fornical region before making the incision. In addition they had to bisect the corpus to access the top pedicles [9].

We believe that ruling out possible loops of bowel in an inverted uterus and finding a normal

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ureteric course in IVP was sufficient before proceeding to myomectomy. Leiomyoma whenever present better be excised before proceeding to hysterectomy as attempts to reposit the uterus may be more successful after myomectomy and hysterectomy is much easier when uterus is repositioned rather than inverted. Such reposition also avoids delay in reinversion procedure and saves valuable time in patients with high risk of anesthesia.

CONCLUSION: Chronic uterine inversion is a rare condition that is difficult to manage even for the experienced gynecologist. USG and MRI usually lead to definitive diagnosis and the treatment is surgical that includes both abdominal and vaginal approaches. However, need for preservation of fertility and excluding possible malignancy might be important in selected cases.

Repositioning the uterus may not be possible in all cases, leaving vaginal hysterectomy the only option. Having pre-operative pelvic ultrasonography in such situation will help in confirming the diagnosis, excluding any content in the inverted uterus. Performing myomectomy helps to relieve traction and at least partially reposit uterus which make vaginal hysterectomy without reinversion much easier and without complication.

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