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Case Report

An unusual case of massive vaginal eversion complicated by obstructive uropathy

Urmi Sanyal^{1*}, Hiremath P. B.¹, Shilpa Ghosh¹, Indu N. R.¹, Ramya M. R.¹, Reshma Hiremath²

¹Department of Obstetrics and Gynecology, SVMCH and RC, Ariyur, Pondicherry, India

²Department of Obstetrics and Gynecology, IMO, Mapusa, Goa, India

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*Correspondence:

Dr. Urmi Sanyal,

E-mail: urmisanal@gmail.com

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ABSTRACT

Pelvic organ prolapse is the descent of the pelvic organs (uterus or bladder or rectum) from their normal anatomical position, in varying combination, into or beyond the vagina as a result of failure of the ligamentous and fascial supports. Sometimes the resulting vaginal eversion or protrusion is so massive it may cause outflow obstruction of one or both ureters. Here authors present a case of a 62 year postmenopausal woman having massive vaginal eversion leading to obstructive uropathy and chronic renal insufficiency. The prolapse was corrected by Sacrohysteropexy.

Keywords: Massive vaginal eversion, Obstructive uropathy, Sacrohysteropexy

INTRODUCTION

Pelvic organ prolapse (POP) is a significant cause of morbidity affecting women across all age groups. Egyptians have recorded cases of womb prolapse as early as 1550 B.C.¹ Pelvic organ prolapse is defined by the International Urogynecological Association and International Continence Society as the descent of one or more of the anterior vaginal wall, posterior vaginal wall, the uterus (cervix), or the apex of vagina (vaginal vault or cuff scar after hysterectomy). The pelvic organ prolapse quantification (POP-Q) helps in establishing uniformity in measurement and reporting of the prolapse. When the prolapse extends to within 2 cm of the total vaginal length, it is called complete eversion and denotes stage 4. Vaginal eversion could be due to failure of support of the uterus at any level, but commonly level 1 support is affected. Level I denotes the support of the upper vagina and cervix or the vaginal cuff (in a hysterectomised woman) by the cardinal-uterosacral ligament complex. Massive vaginal vault prolapse can often cause discomfort and defecatory abnormalities. When vaginal epithelium gets exteriorised, it undergoes cornification

followed by ulceration. This results in significant pain, vaginal bleeding, discharge and infection.² POP has a multifactorial etiology that includes age, parity and postmenopausal status.³

Surgery is the definitive treatment of symptomatic prolapse or a prolapse of stage 2 and beyond. Vaginal hysterectomy with pelvic floor repair is the surgery of choice. If there is no intrinsic uterine disease, all cases of uterovaginal prolapse do not require a hysterectomy. Hysterectomy done for a prolapse will lead to removal of non-diseased uterus and increased morbidity. Procedures like Manchester, sacrospinous hysteropexy and abdominal or laproscopic hysteropexy can be done to conserve the uterus.⁴

CASE REPORT

A sixty two years old postmenopausal woman got admitted to the gynaecology ward of Sri Venkateshwaraa Medical College, Hospital and Research Centre, Puducherry, India in mid December. She presented with a mass coming out of the vagina for the past 5 years. The

descent was insidious in onset and progressive in nature. She had no bladder or bowel disturbances. She was Para 1, Living 1 with a normal vaginal delivery 28 years back. She gave no history of any medical illness or previous surgical procedures. On general physical examination, the patient was poorly built and there were no significant findings other than severe pallor. During local examination, a huge 20 x 10 cms pale, dry mass was found coming out through the introitus. There was diffuse keratinisation on the mass and a decubitus ulcer of 5 x 4 cms over its posterior surface. The opening of the external os was not visualized initially due to extreme surface changes. However, after thorough scrutiny a point depression was detected on the anterior surface of the suggestive of external os. The mass was reduced in the OPD with great difficulty. Routine haematological investigations revealed that the haemoglobin was 6.5mg/dl. To correct the same, 4 units of packed cell transfusion was done. The blood urea was 89 mg/ dl and serum creatinine was 3.9 mg / dl. Hence an opinion was obtained from the urologist and nephrologist who advised the patient to undergo an ultrasound examination of the abdomen and pelvis. The ultrasound revealed the presence of left hypoplastic kidney and minimal hydroureteronephrosis on the right side. Subsequently the colour Doppler study was done which could not evaluate the hypoplastic left kidney and showed a mild increase in the resistance of the visualised arteries on the right side. The ultrasound also showed the presence of bowel loops in the pelvis but uterus was not visualized distinctly. The screening CT was inconclusive too but it was in favour of the presence of an atrophic uterus.



Figure 1: Vaginal eversion.

In view of the above findings, a diagnosis of massive vaginal eversion leading to obstructive uropathy was made. A decision about the choice of procedure, either Sacrocolpopexy or Sacrohysteropexy was to be made depending on the intraoperative findings. Preoperatively daily reduction and packing of the mass was done with glycerine and magnesium sulphate. Laprotomy was done by a transverse incision. A small atrophic uterus was

found and a hence it was decided to proceed with Sacrohysteropexy. The procedure was chosen to reduce the operative time and overall morbidity of the patient. Postoperatively the patient had reduced urine output probably due to unexplained intraoperative hypotension. It was treated with adrenaline infusion. There was a significant improvement in blood urea and serum creatinine levels in the following days. The patient had a wound gaping which was resutured and she was comfortable at discharge.



Figure 2: External os of the cervix.



Figure 3: Decubitus ulcer.

DISCUSSION

Uterine prolapse is the herniation of the uterus into or beyond the vagina as a result of failure of the ligamentous and fascial supports.

It often coexists with prolapse of the vaginal walls, involving the bladder or rectum. Sometimes the resulting vaginal eversion is so massive it drags the bilateral ureters downwards resulting in obstructive uropathy and chronic renal insufficiency. Our patient presented with

massive vaginal eversion which was interfering with her mobility and had severely compromised her quality of life. Her abdominal scan revealed evidence of obstructive uropathy. Nephrologist advised to immediately relieve the pressure on the kidneys by correcting the prolapse. So, authors decided on proceeding with suspension procedure on a semi - urgent basis.

Experts advise on complete healing of the decubitus ulcer before correction of the eversion. But author's personal experience had proved that unhealed decubitus ulcer does not increase the risk of post operative infection. In spite of the patient being postmenopausal authors decided on a uterine conserving procedure. This is because patient did not have any high risk factors for endometrial carcinoma like nulliparity, obesity, diabetes, hypertension, family history, etc. They also wanted to reduce the duration of the surgery considering the coexisting renal dysfunction.

Surgical treatment of female genital prolapse is a common procedure, but evidence for the most appropriate method of surgical repair is lacking.

A variety of surgical treatments for uterine prolapse with variable success rates have been described in the literature. Historically, vaginal hysterectomy remains the accepted surgical treatment for women with uterine prolapse. However, vaginal hysterectomy alone fails to address the pathological cause of the uterine prolapsed.⁵

Transvaginal sacropinous fixation is another option, but due to close proximity of sciatic nerve and pudendal vessels and nerve to sacrosopious ligament, this surgery may lead to significant buttock and leg pain and haemorrhage.⁶

Ventrosuspension is technically simple but high recurrence rate of prolapse refute its practical application. A study reported that eight women out of 9 who underwent ventrosuspension had recurrence within three months.⁷

An alternative approach to this problem is sacrohysteropexy (SHP). It involves using a synthetic mesh to suspend the uterus to the sacrum; this maintains durable anatomic restoration, normal vaginal axis and sexual function. This suspension will correct mild cases of anterior vaginal wall prolapse (cystocele) by further elevation of the vaginal axis.

Several variations of this procedure have been described. Cutner et al performed SHP by passing Marceline tape through uterosacral ligaments to re-suspend the uterus to sacral promontory bilaterally.⁸

Price N used polypropylene bifurcated Y shaped mesh, between sacrum and anterior surface of cervix.⁹ Massey F also used polypropylene mesh, but sutured the lower end on posterior cervix at the level of utero-sacral ligaments.¹⁰

The authors used a Y shaped piece of polypropylene mesh in the patients. One limb of the Y was stitched to the uterosacral ligaments and cervix on the posterior surface of the uterus and the other limb to the anterior isthmus. The long limb of the mesh was attached to the sacral promontory above.

Use of mesh may be associated with the risk of infection and intrusion of mesh from the vagina. Literature reveals studies where extrusion of mesh was reported. Price N⁹ did not report any case of erosion, infection or rejection of mesh in their series, nor did we encounter this complication in our patients. Api M performed this surgery laparoscopically using a different Cravat' technique. 6 Robotic SHP has also been reported to provide results comparable to abdominal SHP.¹¹

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