
CASE REPORT

Chronic Non-Puerperal Uterine Inversion: A report of two cases.

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ABSTRACT:

Inversion of the uterus is a rare clinical problem. Non puerperal inversion usually results from a tumour arising from the fundus of the uterus. The patient may present with heavy vaginal bleeding, discharge or pelvic pain. We report 2 cases of chronic non puerperal uterine inversion in a 38year old woman and a 54year old postmenopausal woman. Both presented with vaginal bleeding, a mass protruding from the vagina and lower abdominal pain. At first vaginal myomectomy was performed and subsequently Kustner procedure and then vaginal hysterectomy in both cases. Early diagnosis, immediate resuscitation and early replacement of the inverted uterus are important to prevent further complications.

Keywords: Chronic, non-puerperal, uterine, inversion, fibroid

INTRODUCTION

Inversion of the uterus is a rare clinical problem.^{1, 2} Non-puerperal uterine inversion occurs when the uterus acts to expel a submucous leiomyoma with fundal attachment,³ sometimes endometrial sarcoma may also have similar effect, causes thinning of the uterine wall, thereby predisposing to inversion.^{4,5}

Non-puerperal uterine inversion can be classified into acute and chronic based on the onset and evolution. The acute is more dramatic and characterised by severe pain and haemorrhage whereas the chronic is insidious in onset with chronic vaginal discharge and irregular uterine bleeding leading to anaemia and feeling of something coming down the vagina.⁵

Treatment depends on pre-operative diagnosis, but abdominal or vaginal hysterectomy is recommended for benign causes if childbearing is complete.⁵ However, when the inversion is associated with malignancy, radical abdominal hysterectomy with appropriate

biopsy is indicated.⁵

CASE REPORTS

Case One

Mrs. UP, was a 38 year old P₄⁺¹ 4 alive, her last childbirth was two years prior to presentation. She was referred to our Centre from Muhammad Abdullahi Wase Specialist Hospital, Kano, with a month history of vaginal protrusion, which became more prominent with micturition and defecation. She menstruated for five days in a regular 28-30 day cycle. However, in the last four years before she presented the duration of her menstrual blood flow had increased to 10 days with excessive blood loss.

She started her menstruation a week before she presented to our hospital, it started as light brown discharge, but progressed to heavy fresh bleeding associated with dizziness and lower abdominal pain.

She was not on contraception and had no history of chronic cough or constipation. All her four children were delivered normally. She was married to a bank driver in a monogamous setting. There was nothing relevant in her past medical and surgical history.

On examination, she was ill looking, pale with a pulse rate of 112 beats per minute, regular and of good volume. She had a blood pressure of 100/60mmHg with first and second

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heart sounds only. Her abdomen was soft, had lower abdominal tenderness but the liver, spleen and kidneys were not palpably enlarged. There was no demonstrable ascites.

Pelvic examination revealed a protruding mass from the vagina, which was firm, about 15cm x 8cm, globular and haemorrhagic. A working diagnosis of fibroid polyp was made. She was counseled and prepared for examination under anaesthesia (EUA). A Full Blood Count (FBC) and serum Urea and Electrolyte (U&E) were done. Her Packed Cell Volume (PCV) was 20%. She had three units of blood transfused before the EUA. The post transfusion PCV was 30%

Examination under anaesthesia was done three days after presentation. She was found to have complete uterine inversion with a uterine fibroid measuring about 10x8cm attached to the uterine fundus. The external urethral meatus looked grossly normal, but the cervix could not be identified.

Myomectomy was done vaginally, and then a Kustner procedure was used to replace the inverted uterus. Vaginal hysterectomy was then performed.

She did well and she was discharged home on the 5th post-operative day.

Histology confirmed leiomyoma uteri and benign nature of the hysterectomy specimen.



Before surgery



After surgery

CASE TWO

Mrs. IJ was a 54 year old P₈⁺², 4 alive, 4 years postmenopausal, her last child birth was 13 years before presentation. She was referred to our centre from Sir Sanusi General Hospital, Kano with four month history of recurrent vaginal bleeding and three month history of vaginal protrusion associated with lower abdominal pain.

Examination revealed a chronically ill looking woman, pale but not jaundiced. Her pulse rate was 100 beats per minutes, regular and of good volume. She had a blood pressure of 110/70mmHg with first and second heart sounds only. There was no remarkable finding on abdominal examination.

Pelvic examination revealed a huge mass protruding from the vaginal introitus, measuring 20x12 cm with areas of necrosis and ulceration. The cervix was not identifiable. There was no active bleeding from the mass. An initial diagnosis of third degree uterovaginal prolapse was made.

Her packed cell volume was 26%, serum electrolyte and urea were within normal limits. She had two units of blood transfused preoperatively

Two days after admission, she had examination under anaesthesia, during which a globular mass with areas of necrosis and ulceration, with a huge gangrenous submucous fibroid measuring 10x10cm on the fundal region of the inverted uterus was observed. She had vaginal myomectomy done and Kustner

procedure was used to replace the inverted uterus and vaginal hysterectomy was performed.

She did well postoperatively and she was discharged home on the 7th post-operative day. Histology confirmed leiomyoma and benign nature of the uterus.



Before surgery



After surgery

DISCUSSION

Uterine inversion is a rare clinical problem. Uterine inversion occurring in the puerperium is an emergency. When uterine inversion occurs outside the puerperium it poses a diagnostic dilemma as it was in both cases presented³, were fibroid polyp and 3rd degree uterine prolapsed were the initial diagnosis.

Most cases of non-puerperal uterine inversions are usually chronic³ as were the cases

presented, however, 8.6% of the cases are of acute onset.³

The uterine inversions in the cases presented are due to submucous uterine fibroids. Other causes of chronic uterine inversion include, endometrial polyp, uterine sarcoma, endometrial carcinoma and mixed mesodermal tumours^{2,5}

Symptoms of non-puerperal uterine inversion are vaginal bleeding, vaginal mass, as was the case in the presented cases. Other symptoms include, lower abdominal pain and urinary disturbance⁶. In addition the patient may complain of pressure in the vagina or of something protruding or coming down the vagina.⁵

In chronic cases, diagnosis is difficult. In the cases presented, the initial diagnoses were fibroid polyp and 3rd degree uterovaginal prolapse. The diagnoses were confirmed during examination under anaesthesia.

Magnetic Resonance Imaging (MRI) and Computerized Tomography (CT) scan, are useful diagnostic tools.³ MRI can examine the characteristic image of uterine inversion. A U shaped uterine cavity and a thickened and inverted uterine fundus on a sagittal image and a 'bulls-eye' configuration on axial image are signs indicative of uterine inversion⁷

The above investigations were not done in the cases presented because, we have no MRI machine in our Centre and the CT scan available is expensive. Ultrasound scan was not done for the diagnosis in the cases presented, however in a transverse plane using transabdominal Ultrasound scan, the uterus appear as a "target sign" with hyperechoic fundus surrounded by a hypoechoic rim, representing fluid within the space between the inverted fundus and the vaginal wall. The endometrium lines the periphery of the inverted fundus. Imaged transabdominally in the sagittal plane, the uterus would appear as a mirror image of a normally situated uterus. The uterine fundus will be in the vagina with fluid in the vaginal fornices. The two opposed sero-sal surfaces simulate the appearance of an endometrial stripe or "pseudostripe." Transvaginal imaging will show similar findings. This can be differentiated from a markedly retroflexed uterus when the transducer abuts the normal-appearing cervix, whereas in complete uterine

inversion, the transducer abuts the fundus, and a normal cervix is not shown⁸.

The fundal myomas in both cases presented were removed vaginally from the uterine wall and haemostasis secured using vicryl No 1 sutures. The uterine inversion was then corrected using Kustners procedure. Vaginal hysterectomy was then performed. This was the treatment of choice because Mrs. UP desires no further fertility and Mrs. IJ was a post-menopausal woman.

Non-puerperal uterine inversion is extremely rare. Thus when a woman presents with something coming down the vagina associated with vaginal bleeding and lower abdominal pain, a differential diagnosis of uterine inversion should be considered.

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Cite this article as: Muhammad Z, Ibrahim SA, Yakasai IA. Chronic Non-Puerperal Uterine Inversion: A report of two cases.. *Bo Med J* 2012;9(1) 18 - 21