



## A RARE CASE OF NONPUERPERAL CHRONIC UTERINE INVERSION DUE TO LONG STANDING UTERINE FIBROID.

|                                  |                                                                                                                                                   |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dr. Seema Methre</b>          | Post Graduate Resident, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India.                    |
| <b>Dr. Jagrati Kiran Naagar*</b> | Associate Professor, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India. *Corresponding Author |
| <b>Dr. Priyanka Patel</b>        | Assistant Professor, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India.                       |
| <b>Dr. Priyanka Tiwari</b>       | Associate Professor, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India.                       |
| <b>Dr. Siftie Banga</b>          | Senior Resident, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India.                           |
| <b>Dr. Anjali Methre</b>         | Post Graduate Resident at Department of Radiology, King Edward Memorial Hospital, Mumbai.                                                         |
| <b>Dr. Aashamika P Kundargi</b>  | Post Graduate Resident, Department of Obstetrics and Gynecology, at Bundelkhand Medical College, Sagar, Madhya Pradesh, India.                    |

### KEYWORDS :

#### INTRODUCTION

Acute on chronic inversion of the uterus, especially in non-puerperal cases, is indeed rare and typically linked to tumors. Diagnosis can be challenging, as it often requires a high index of suspicion, particularly when initial evaluations suggest fibroid polyps or third-degree utero-vaginal prolapse.<sup>1</sup>

NPUI is around 1/6th of all intraoperative cases. Around 150 cases have been reported from 1887 till now. Takeno et al summarized 88 reported cases of NPUI, of which 92% were associated with uterine tumors and 20% of which were malignant. NPUI are frequent in African women. Prolapsed fibroid in the most common inciting factor (78.8-85%).<sup>2</sup>

To effectively identify this condition, clinicians should maintain awareness of the possibility of uterine inversion in patients presenting with relevant symptoms, especially if there is a history of uterine anomalies or masses. Imaging studies, such as ultrasound or MRI, may aid in clarifying the diagnosis, and careful clinical examination is crucial. Prompt recognition and management are important to prevent complications associated with this condition.<sup>3</sup>

#### Case Report

A 35 years old female with para3, living2. She was referred from district hospital and she came to our gynecology OPD with complaint of white discharge per vaginum since 4 months and mass per vaginum and amenorrhoea since 4 months. She also had on and off bleeding per vaginum while passing urine and stool since 4 months. She also had history of 3 units PRBC transfusion for severe anemia at District Hospital in the last 4 months.

Her obstetric history was P3L2, all home delivered normal full term deliveries which were uncomplicated.

Her previous menstrual history was regular with 30-day cycle with no clots and dysmenorrhea.

- On general physical examination, vitals were stable and pallor was present
- On local examination no mass seen outside vagina, but on per speculum examination, there was large polypoidal mass of size 6 X 7 cm seen coming through os .
- On per rectal examination rectal mucosa was free.
- On PV examination, mass was felt protruding through the os, which was firm in consistency, nontender, bleeding on touch, and

mobile from side to side, highly vascular.

Provisional diagnosis of mass per vagina was made with differential diagnosis of fibroid polyp.

On investigations, her Hb was 8 gm/dl with normal coagulation profile and raised liver enzymes for which she was transfused with 1 unit PRBC and 2 units of FFP. USG suggested large fibroid in posterior wall of uterus measuring 5 x7 cm with ET 8mm and right sided hydronephrosis. CECT abdomen and pelvis suggested Large homogeneously enhancing soft tissue mass in endocervical canal filling upper part of vagina measuring 95×73×78 mm which was polypoidal in nature.

After giving antibiotic treatment for 5 days, haematologic correction along with daily packing with antiseptic and glycerine, she was posted for definitive surgery. In view of her age, she was planned for TAH with BSO. We found NPUI intra-op, both vaginal and surgical approach used. surgery was successful and there were no intra op or post-op complications noted, so patient was discharged from hospital on 8th post-operative day after complete suture removal.



#### DISCUSSION

Uterine inversion refers to descent of the uterine fundus to or through the cervix, so that the uterus is turned inside out. It is a rare condition that occurs usually as a complication of delivery in early postpartum period. But NPUI is extremely rare in presenting about 1/6th of all inversion. Chronic NPUI is often associated with uterine pathology.

Prolapsed fibroids tend to be the most common inciting factor with occasional report of inversion associated with uterine neoplasm and endometrial polyp.

Three contributing factors proposed for uterine inversion are 1) sudden complying of the uterus which was previously distended by a tumor 2) Thinning of the uterine walls due to an intrauterine tumor and 3) Dilatation of the cervix.<sup>4,5</sup>

Symptoms of non-puerperal uterine inversion (NPUI) can include vaginal bleeding, a mass protruding from the vagina, lower abdominal pain, and urinary incontinence. Diagnosis can be achieved through various methods:

Clinical examination may reveal a mass extending from the vagina, often accompanied by a negative probe test. The rectoabdominal method can enhance diagnostic accuracy. Ultrasound (USG) can demonstrate an indentation in the fundal area and a depressed longitudinal groove leading to the center of the inverted uterus. Additionally, the “target sign” may be observed, indicating fluid accumulation between the inverted uterus and the vaginal wall.<sup>6</sup>

Magnetic resonance imaging (MRI) can reveal a “U”-shaped uterine cavity and a thickened, inverted uterine fundus on sagittal images. Axial images may present a “Bull's eye” configuration, with T2-weighted MRI being particularly useful for detailed assessment. Confirming the presence of the endometrium on the surface of the mass is essential for diagnosis. If there is suspicion of malignancy, a biopsy of the mass is necessary to rule out cancer.<sup>7</sup>

Timely and accurate diagnosis of NPUI is crucial for effective management and to avoid potential complications.<sup>7</sup>

## CONCLUSION

Chronic inversion of uterus is a rare clinical entity. It is likely to be mistaken for a submucosal polyp or cervical cancer. Pelvic USG and laparoscopy helps to establish the diagnosis. Treatment of the condition is surgical.

## REFERENCES

1. Deka G, Das GC, Gautam H. Non puerperal uterine inversion with fibroid polyp- A case report. *The New Indian Journal of OBGYN*. 2016; 2(2): 121-4.
2. Takano K, Ichikawa Y, Tsunoda H, Nishida M. Uterine inversion caused by uterine sarcoma: a case report. *Jpn J Clin Oncol*. 2001; 31: 39-42.
3. Muhammed Z, Ibrahim SA, Yakasai IA. Chronic NPUI: case series. *Niger J Basic Clin Sci*. 2012; 9(2): 87-90.
4. Thakur M, Thakur A. Uterine Inversion. [Updated 2022 Nov 28]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK525971>
5. Birge, Ozer et al. “Chronic Total Uterine Inversion in a Young Adult Patient.” *The American journal of case reports* vol. 16 756-9. 23 Oct. 2015, doi:10.12659/ajcr.894264.
6. Kuntal AR, Pravin SP. Complete uterine inversion: An unusual yet Crucial Sonographic Diagnosis. *J Ultrasound Med*. 2009; 28: 1719-22.
7. Lewin JS, Bryan PJ. MR Imaging of uterine inversion. *J Comput Assist Tomogr*. 1989; 13: 357-9.