

# Non Puerperal Uterine Inversion -A Rare Case Report

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## Abstract

Uterine inversions are seldom encountered in the puerperal period with incidence of 1 in 3500 deliveries which are life threatening events. Inversion of non-pregnant uterus is rare event reported approximately 100 cases in literature. Incidence has not been defined. Management of the condition poses many difficulties, surgery is the main modality of the treatment. Here we report a case of 35 years old multiparous women presented to emergency with complaints of heavy menstrual bleeding. on P/A examination uterus was not palpable. on PV examination a globular hard mass measuring 7\*7 cm filling the vagina was seen, cervix could not be visualized/reached. USG pelvis showed large fundal fibroid measuring 5\*6cm. uterine inversion was diagnosed intra operatively abdominal hysterectomy was done after Haultains procedure. post-operative period was uneventful. Diagnosing uterine inversion requires high index of suspicion, proper history elicitation and previous history of diagnosis of uterine pathology more so uterine fibroids should be ruled out.

**Key Words:** Non puerperal, Uterine inversion, Haultains procedure.

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## I. Introduction

Uterine inversions are seldom encountered during third stage of labour with incidence of 1 in 3500 deliveries which are life threatening events. Inversion of non-pregnant uterus is rare event reported approximately 100 cases in literature<sup>1</sup>. Nonpuerperal inversions present mostly as chronic cases, although Das has reported 8.6% of nonpuerperal inversion as a sudden onset.<sup>2</sup> the mechanism of nonpuerperal inversion is not so clear. Here we present a case of multiparous woman with uterine inversion and challenges posed during management.

## II. Case Report

A 35 year old, multiparous woman para 3 living 3 presented to our emergency with excessive bleeding pv from 6 months. she complaints of exaggerated pv bleeding from two days, changed 5-6 fully soaked pads for two day, associated with passage of clots and dysmenorrhea and easy fatiguability. There was no history of mass per vaginum., white discharge pv, no history of frequency/urgency of urine, no history of palpitation. She had no other co morbidities, no history of previous hospitalizations, she didn't seek any medical care for the symptoms in the past. On examination patients vitals were stable, per abdomen-uterus not palpable. On PS examination a globular firm mass measuring 7\*7 cm filling the entire vagina was seen, cervix could not be visualized. On bimanual pelvic examination uterus was 20 week size, cervix couldn't be felt and bleeding was present. Investigations showed her HB% as 5.2 g/dl, she was transfused with 2 units of packed red cells, and her USG abdomen and pelvis – showed retroverted uterus, a large fundal fibroid measuring 5\*6cm. Patient was planned for elective hysterectomy as she had completed family. she was further evaluated.

Patient was posted for surgery after anesthesia clearance, intraoperatively uterine inversion was diagnosed, abdominal hysterectomy with bilateral salpingectomy was done after Haultains procedure. Post operative period was uneventful.



**Figure 1.uterine inversion- Flower vase appearance – ovaries and fallopian tubes seen projecting out throughintended uterine fundus.**



**2. Fundal fibroid reduced manually posthaultains procedure through incised posterior uterine wall**

### **III. Discussion**

Nonpuerperal uterine inversion is rare, and actual incidence is not known. Most of the published literature on uterine inversion is in the form of case reports. Nonpuerperal uterine inversion has been reported in only 5 women under 45 years of age.<sup>3</sup> Nonpuerperal inversion of the uterus is usually caused by a benign myoma. The mechanism of nonpuerperal inversion is not so clear. Uterine inversion can be classified as acute or chronic based on the onset and evolution of symptoms. The acute manifestation is often dramatic, presenting with severe pain and hemorrhage, while in the chronic manifestation, presenting symptoms include pelvic pain, heaviness, profuse vaginal discharges, and heavy vaginal bleeding<sup>9</sup>. The pathophysiology of uterine inversion appears to be multifactorial, seemingly involving 3 main etiologic factors: i) sudden emptying of the tumor; ii) thinning of the uterine walls by the intrauterine tumor, and iii) dilatation of the cervix<sup>6</sup>. The distended myometrium becomes irritated and develops expulsive contractions, which dilate the cervix and facilitate expulsion of the tumor. The tumor passes through the weak portion of the myometrium where it is attached, thereby expediting inversion. Additional possible etiologic factors include the weight of the intrauterine mass, manual traction on the tumor, straining, coughing, and sneezing.<sup>4</sup> The main clinical symptoms of uterine inversion are abnormal vaginal bleeding, lower abdominal pain or vaginal pressure, and, in rare cases, acute urinary retention by urethral compression. The clinical diagnosis of uterine inversion may be suspected if the cervix is hidden behind the tumor and the uterine fundus cannot be palpated; consequently, pelvic ultrasonography or MRI may be beneficial for diagnosis.

Ultrasonography shows 2 signs: indentation of the fundic area and a depressed longitudinal groove extending from the uterus to the center of the inverted portion. either of the signs were absent in our case. MRI and CT scan are useful diagnostic tools. They also help in understanding the extent of involvement

of the bladder and ovaries in the inverted tissues. Signs indicative of uterine inversion on MRI are U shaped uterine cavity and a thickened and inverted uterine fundus on a sagittal image and a “bulls-eye” configuration on an axial image<sup>5</sup>

Uterine inversion may be classified into 4 stages: i) incomplete inversion of the uterus with the uterine fundus in the cavity; ii) complete inversion of the uterine fundus through the cervix; iii) complete inversion with the fundus protruding through the vulva; and iv) complete inversion through the vulva of both the uterus and the vagina.

Hysterectomy is usually the treatment of choice for nonpuerperal uterine inversion in women with no further desire to fall pregnant. Many surgical techniques have been described, including abdominal approaches like those of Huntington and Haultain and vaginal approaches like those of Kustner and Spinelli.<sup>1</sup>

the vaginal approach requires either incision of the anterior or posterior vaginal wall or that of the constricted cervical ring and posterior uterine wall. The abdominal approach, in which the uterus is not incised, has been defined by Huntington<sup>8</sup>; the inverted portion is pulled from the uterus with Allis clamps. Unfortunately, this technique was not successful in our case. So we resorted to the Haultain procedure, which is an easy and surgically safe method<sup>7</sup>, which involves incision of the posterior uterine wall for repositioning of the inverted fundus in our case. For women who wish to preserve childbearing capabilities, conservative surgery is preferred; although, in malignant cases, radical hysterectomy may be recommended<sup>10</sup>

### Conclusion

This rare cases posed many difficulties both in diagnosis and management. A high index of suspicion is required by gynecologist as well as the sonologist while diagnosing the case. Once the diagnosis is established opting the correct surgical method is important. Individualization of the case for management is crucial.

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