



## Recurrent Puerperal Uterine Inversion

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### ABSTRACT

Uterine inversion is rare and life threatening obstetric complication. This is a case of recurrent uterine inversion managed successfully with Johnson's Maneuver followed by condom tamponade placement.

**Keywords:** intrauterine condom catheter, Johnson's maneuver, recurrent uterine inversion

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### INTRODUCTION

Uterine inversion is called when the uterus is turned inside-out partially or completely. The incidence of uterine inversion varies from one in 2,000-20,000 deliveries.<sup>1</sup> Uterine inversion can be puerperal or non puerperal. Degree of inversion varies according to the severity of inversion, delay between delivery and diagnosis of inversion. The risk factors for uterine inversion is fundal attachment of placenta, fundal leiomyoma, control cord traction before signs of placental separation or in atonic uterus and abnormally morbidly adherent placenta associated with Placenta Accreta Syndrome. The complications are postpartum hemorrhage and shock due to hypovolemia and neurogenic.

### CASE

A 30 years old P2 with preterm vaginal delivery at 36 weeks of gestation referred-in after 2.5 hours of delivery at 7:30am on 25 January 2018. She had 2.4kg normal birth. She was anemic and abdomen was normal with no uterus palpable. There was a smooth globular hyperemic mass at introitus with active bleeding present and it was continuous with cervix and vagina. [Figure -1]



Figure-1: Complete uterine inversion

The diagnosis made was "Acute Complete Uterine Inversion with PPH"; Folley catherization was done. Her hemoglobin was 7.4 gm/dl, platelets count 213,000/mm<sup>3</sup> and PT 14 sec. She was transferred to Operation Theater and Johnson's Maneuver (the uterus is replaced by pushing on the inverted fundus with palm of hand and fingers in direction of long axis of the vagina through the cervical ring with pressure directed toward the umbilicus) applied under general anesthesia (GA). Oxytocin infusion started and prophylactic intrauterine Condom Tamponed kept. Patient was transferred to intensive care unit (ICU). Two units of blood transfused. After 28hrs of procedure, Condom Tamponade was slowly removed and Folley catheter also removed. Uterus was 20 weeks size and well contracted; cervical os was parous and lochia rubra was present. Patient was transferred to ward after 2 hrs of removal of condom catheter. During voiding urine after 9 hrs of removal of condom tamponade, she noticed sudden bulge of mass coming out per vagina. Abdomen was soft non tender and uterus was not palpable but there was a soft non tender hyperemic mass at the introitus. Repeat uterine inversion was identified; Foley catheter drained 450 ml of urine. Again she had Johnson's Maneuver under GA followed by prophylactic condom tamponade placement. Oxytocin infusion

continued for 12 hrs; two units of blood transfused; and Foley catheter removed after 72 hours. She was discharged on 5<sup>th</sup> day of admission; uterus well contracted at 18 weeks size and normal contour, and no vaginal bleeding. On ultrasonography there was normal contour of uterus and residual urine of 50 ml. Follow-up visit after one and six weeks was normal.

## COMMENTS

The incidence of uterine inversion in Paropakar Maternity and Women's Hospital in 2017 was 1/18993 deliveries. The incidence is almost constant over three years from 2006 to 2009 with four reported cases from 56,455 deliveries.<sup>2</sup> This recurrent uterine inversion is the first known and reported case in our institute. There is no clear guideline on the management of recurrent uterine inversion. There are very few case reports on recurrent uterine inversion and different methods of management. In 2009, Soleymani MH et al have reported first successful management of recurrent uterine inversion with Surgical Obstetric Silicone bakri balloon; then by Elósegui JJH et al in 2011.<sup>3,4</sup> Kabir N et al and Sharma N et al have reported acute uterine inversion managed by Johnson's maneuver; then subacute uterine inversion by Haultain's operation (cervical ring is posteriorly incised to facilitate uterine replacement by Huntington method).<sup>5,6</sup> Another case report of successful management of recurrent puerperal uterine inversion was managed first by Johnson's maneuver for acute inversion and for recurrent uterine inversion exploratory laparotomy was done to reposit by Huntington technique (progressive upward traction on each round ligament by application of atraumatic clamps with simultaneous upward pressure transvaginally) and multiple Cho suture; bilateral uterine arteries and utero ovarian arteries were ligated prophylactically. Vaginal pack with roller gauze kept prophylactically to prevent reinversion.<sup>7</sup>

Recent advances in the management of uterine inversion involves case reports on being managed by laparotomy followed by use of obstetric ventose and in non puerperal case being managed laproscopically.<sup>8,9</sup>

The cause of this uterine inversion could be uterine atony that could have precipitated by urinary retention like in the case reported by Kabir N et al. But Urinary retention could be both precipitating factor as well as the obstructive complication of uterine inversion.

## CONCLUSIONS

Recurrent uterine inversion can be managed conservatively with Johnson's maneuver and intrauterine condom tamponade placement. Urinary retention should always be kept in mind.

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