# PUERPERAL INVERSION OF THE UTERUS

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SUMMARY

**Eighteen cases of puerperal inversion of the uterus were admitted to our Hospital during the last ten years, 1980-89. The method of management and certain special features have been discussed here. One patient developed gangrene of the little finger probably due to excess methergin. Four of the eighteen patients died, giving a mortality of 22.2%. Puerperal inversion of the uterus continues to be a cause of maternal deaths in our country. In about 1,20,000 deliveries in 10 years, there was only one case of inversion following delivery in our hospital. Proper management of the third stage of labour can prevent this complication.**

## *Introduction*

Acute puerperal inversion of the uterus is a rare complication of labour which may be life threatening, unless promptly managed. Reports in the literature estimate it to vary between 1 in 17,000 to 1 in 2,00,000 deliveries. In India, where maternity services are less developed, the incidence is 1 in 8500 Samarrae, (1965).

## *Material*

There were 18 cases of puerperal inversion of the uterus admitted in the Institute of Obstetrics and Gynaecology, Hyderabad during a period of 10 years from 1980-89. Only one of these cases delivered in this hospital. About 12,000 women deliver per year in our hospital. There were 10 cases of acute inversion, who were admitted within a few hours after delivery, one case of subacute variety who delivered 3 days prior to admission and 7 were cases of chronic puerperal inversion in whom the interval between delivery and admission ranged from few weeks to years, the longest interval being 10 years. Out of 10 patients with acute inversion, 1 delivered in our hospital, 2 patients delivered in other hospitals and were referred with inversion of the uterus and 7 patients delivered at home. All of them were in a state of shock at the time of admission.

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TABLE - I

| Parity | No. of Cases | % |
|---|---|---|
| Primi parae | 11 | 61.1% |
| Multi parae | 7 | 38.9% |

TABLE - II

| Degree of Inversion | No. of Cases | % |
|---|---|---|
| Second Degree | 12 | 66.6% |
| Third Degree | 6 | 33.3% |

### *Management*

1. The management has been briefly outlined in Table III.

TABLE - III

| Type of Inversion | Management | No. of Cases |
|---|---|---|
| Acute(10) | Manual reposition (1 expired later) | 3 |
| | Manual reposition followed by subtotal hysterectomy for PPH | 1 |
| | O'sullivan's method unsuccessful | 1 |
| | Laparotomy and division of the ring anteriorly (Dobbin's operation) | 2 |
| | do + Tubal ligation | 1 |
| | Expired soon after admission | 3 |
| Subactue(1) | Laparotomy and division of the ring anteriorly | 1 |
| Chronic(7) | Haultain's operation | 2 |
| | Haultain's + Tubal ligation | 2 |
| | Laparotomy + division of the ring anteriorly + tubal ligation | 1 |
| | Subtotal Hysterectomy | 1 |
| | Vaginal Hysterectomy | 1 |

2. One patient who had inversion of the uterus in our hospital was a primipara. The delivery was conducted by a student nurse. The placenta was still attached to the inverted uterus. Manual reposition of the uterus was possible only after the removal of the placenta. The inversion recurred twice after withdrawal of the hand and after replacing the uterus third time, the hand was retained in the uterus till the uterus retracted well with I.V. oxytocin infusion. This woman had a normal vaginal delivery in our hospital two years later. Pregnancy with normal vaginal delivery following inversion has been reported by several workers.

3. Four of the 18 patients died. 3 patients with acute inversion were admitted in a state of irreversible shock and died within ten minutes of admission. One patient, who was a grandmultipara, was admitted in a state of shock with 2° inversion. Manual reposition was done but the patient died 3 days later due to peritonitis.

4. In 4 of the patients acute and 1 chronic, the inversion was corrected by dividing the ring anteriorly after laparotomy similar to the Spinelli's operation by the vaginal route Dobbin's operation.

5. Manual reposition of the inverted uterus was successful in one case, but because of atonic PPH, subtotal hysterectomy had to be done.

6. In one case of chronic inversion of 10 years duration, laparoscopy was performed to confirm the diagnosis and later vaginal hysterectomy was done.

7. One patient with chronic inversion of the uterus was diagnosed as a case of fibroid polyp and it was excised from below, which resulted in subtotal hysterectomy. Inspection of the specimen revealed that it was the inverted uterus. Immediate Laparotomy was done and the uterine vessels and tubes and ovarian ligaments were ligated and the patient recovered without any complications. This woman delivered one year prior to admission and was lactating at the time of admission. The uterus was superinvoluted and there was no infection.

### *Discussion*

Many causes have been suggested for uterine inversion like mismanagement of the third stage of labour by excessive cord traction, Crede fundal pressure, fundal implantation of the placenta, uterine atony, congenital weakness, primigravidity, etc. Watson et al (1980) suggests that uterine inversion may occur independently of such factors as parity, duration of labour or mismanagement of the third stage of labour.

The fact that only one case of inversion of uterus has occurred in our hospital over a period of 10 years shows that this serious obstetric emergency can be avoided by proper management of the third stage of labour.

One patient with third degree inversion who was admitted three days after delivery developed gangrene of the little finger of the left hand. Excision of the gangrenous finger tip with nail was done one month later. This was thought to be due to the administration of excessive dose of Inj. Methergin to control PPH. Ergotamine and related alkaloids produce peripheral vasoconstriction, damage the capillary endothelium and are known to cause thrombosis and gangrene in large doses. Some fatalities from gangrene are reported in patients who have an unusual vascular sensitivity to ergotamine - Paul B (1975).

66% of these cases in our series were primiparae. Prevalence of primiparae was also noted in many other series who suggest a congenital predisposition to inversion in these women. Since the duration of third stage of labour is longer in primiparae premature interference at placental removal may be an aetiological factor for inversion.

Incomplete inversion of the uterus was observed to occur on a few occasions during caesarean section due to cord traction in the presence of uterine atony. The placenta was not adherent in any case and the inversion was corrected immediately.

Bruce (1984) recommends that all uteri should be explored manually immediately after the delivery of the placenta to detect an incomplete inversion for prompt correction.

### *References*

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