

## PUERPERAL INVERSION OF UTERUS—ANALYSIS OF 8 CASES

by

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### Introduction

Acute inversion of the uterus during puerperium is one of the serious complications of obstetrics. It has been known since time memorial. But fortunately it is one of the rare accidents.

Inversion usually occurs during or soon after the third stage of labour. Less frequently, it is seen during the puerperium, may be of subacute variety. A study of 8 cases of puerperal inversion seen by us is presented here. The object of this paper is not only to report the incidence, but also to discuss the various factors.

### Material

Eight cases of Puerperal inversion were collected during a period of four and half years from January 1977 to June 1981 at Government Raja Mirasudar Hospital attached to Thanjavur Medical College, Thanjavur. A detailed analysis of these 8 cases were studied in respect to their

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etiology, management and their result (Table I).

### Result

*Incidence:* During the four and half years, there were 23,162 deliveries giving an incidence of 1 in 2895. Unlike, in other places the incidence in our hospital is high probably being a mofussil referral Medical College Hospital, 7 cases are referred from outside. Only 1 case of acute inversion occurred in the hospital. If this factor is taken into consideration, the actual corrected incidence being in 23,162.

In comparison, the corrected incidence is almost similar to that of other places.

### Party

Primigravida are more common in this series (50%). A similar incidence was reported by Das (50%).

Out of 8 cases, 2 were chronic and the rest were acute. The 2 cases of chronic puerperal inversion were of 3 months and 4 years duration. In the literature, the reported maximum duration of chronic inversion was 10 years (Masani).

### Discussion

*Aetiology:* Inversion occurs spontaneously or iatrogenically. Spontaneous in-

TABLE I

Nabe & Age	Gravida	Type of Inversion	Duration	Place of delivery	Type of Mismanagement
1. M 20 yrs.	Primi	Acute	5 hrs.	Outside	Fundal pressure given for delivery. Fetus with intact membranes followed by inverted uterus with adherent placenta as an en mass. Separated later. Admitted with shock.
2. S 20 yrs.	III	Acute	24 hrs.	Outside	Admitted with shock. Fundal pressure and cord traction given for III stage. Placenta delivered followed by inversion.
3. R 22 yrs.	III	Acute	12 hrs.	Outside	Not known
4. E 23 yrs.	Primi	Chronic	4 yrs.	Outside	Not known
5. P 22 yrs.	Primi	Chronic	3 months	Outside	Manual removal of the partially adherent placenta.
6. K 22 yrs.	II	Acute	12 hrs.	Outside	Cord traction. Admitted in a moribund condition.
7. C 18 yrs.	Primi	Acute	8 hrs.	Outside	Fundal adherent placenta—cord traction. Admitted moribund.
8. S 30 yrs.	IV	Acute	Immediate	Hospital	Fundal adherent placenta. No fundal pressure. Controlled cord traction. Spontaneous inversion of uterus with bearing down pain.

version is very rare, and is mainly due to a precipitate labour and delivery of the foetus in standing posture. Iatrogenic inversions are common due to mismanagement of third stage of labour. In our series, 5 cases were mismanaged, in 2, the nature of inversion was not known, and in 1, it was a spontaneous inversion (25%). Whereas in Das's series inversion occurred spontaneously in 40%. However, most authors believe that injudicious management of the third stage of labour is the main important factor of this accident. Five out of 8 cases in this series had some kind of mismanagement of third stage.

Gordon, Spain and Shelper were of the opinion that fundal implantation of placenta is the cause for inversion rather than mismanagement of third stage.

In 4 cases (50%) the placenta was adherent, of whom 3 had fundal implantation of placenta. In all of them, except in 1, cord traction combined with suprapubic pressure on the uterus was the contributing etiological factor for inversion. One case was interesting, in whom fetus with intact membranes, placenta and the inverted uterus came out as en mass due to fundal pressure. In another, manual removal of placenta produced inversion. The reason may be the external hand pressing firmly upon the atonic uterus, or by the internal hand being quickly withdrawn, establishing a negative pressure.

The other etiological factors may be a congenital inherent weakness at the fundus, chronic metritis or congenital malformation of the uterus. (Marcus and Brandt 1957).

TABLE I (Contd.)

by whom	Treatment	Result
Untrained person	Manual correction	Discharged well
Untrained person	Manual correction failed Surgical correction advised	Patient went against Medical advise. Not willing for surgery
Untrained person relative	Manual correction attempted—failed total abdominal Hysterectomy	Discharged well
Untrained person	Haultains operation with sterilization and Plication of round ligament	Discharged well
Untrained person	Dobbin's operation	Discharged well
Untrained person	No treatment given	Expired
Paramedical staff	No treatment given	Expired
House Officer	Manual correction after separation of placenta	Discharged well

#### Type of Treatment

Seven cases were referred from outside, 5 with shock. Two cases died before the resuscitative measures could be started. All cases of acute inversion were brought within 24 hours. Manual correction was attempted in 4 cases, with successful correction in 2. Of the 2 failed cases, 1 was discharged against medical advice with uncorrected inversion, as she was not willing for surgery. Another had abdominal hysterectomy. The 2 cases of chronic puerperal inversion who had operative correction, made uneventful recovery.

Another point of controversy in management is when to remove the placenta. In about 50% of cases placenta is attached. Shelpner and Cosgrove (1964) recom-

mended removal before replacement, stating that this facilitates the procedure. O'Sullivan (1945) was of the opinion that immediate replacement of the uterus without removal of placenta will prevent the haemorrhage and exaggeration of shock. Removal of the placenta prior to replacement had a better prognosis in this series.

Successful manual correction is possible if we do it immediately or within 6 hours before the cervical ring and oedema of the uterus develop.

The result of operative correction for inversion have been found to be satisfactory. Even pregnancy with normal vaginal delivery has been reported by several workers (Chandra and Rathy 1964; Heera and DaRosario 1966, Agarwal and Olyai 1966). In our series, so far pregnancy has not been reported.

**Conclusions**

Eight cases of puerperal inversion are presented with the discussion of various factors. There were two cases of death among the eight cases, giving a metarnal mortality of 25%.

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