

ACUTE PUERPERAL INVERSION OF THE UTERUS

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INTRODUCTION

ACUTE puerperal inversion of the uterus is considered a rarity, the incidence varying from 1:17,000 to 1:200,000 deliveries (Donald, 1969). Hence, personal experience in managing this emergency during the training period of an obstetrician may be lacking.

Many methods of reducing an uterine inversion have been described, from manual replacement to operative intervention. Manual replacement is extensively utilized in the United States. (Hanton and Kempers, 1964). However, in the presence of a soft, boggy uterus, a great degree of skill and dexterity is essential. In cases where there is delay between inversion and treatment, the dangers and difficulty of reduction are greatly increased. Such a situation often occurs in this country. Hydrostatic reduction of acute uterine inversion was first described by O'Sullivan (1945) and subsequently sporadically used. A survey of the literature reveals an inadequate description of the technique. Dewhurst and Bevis (1951) and Enright (1953) did not describe an important manoeuvre essential for the success of O'Sullivan's procedure. A personal experience of four cases of acute uterine inversion managed over a short period of time emphasizes the importance of an extra step.

CASE REPORTS

From 1.1.74 to 31.12.77, there was a total of 28,008 deliveries in General Hospital, Malacca. During this period of four years, there were 8 cases of major acute uterine inversion, giving an incidence of 1:3,500. The clinical features are summarised in Table I. Of the 8 cases, 4 were primiparous, 3 were of parity 2 to 5 and one was a grandmultip.

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Prior to 1976, acute inversion was treated by Haultain's operation. Subsequently, reduction was achieved by the hydrostatic method. Both techniques successfully reduce the inversions and there were no deaths. However, the duration of hospitalization was twice as long with Haultain's operation when compared with the hydrostatic method.

Case No. 6 required an abdominal hysterectomy because of placenta accreta which could not be safely removed. One patient (Case No. 1) subsequently returned with a second pregnancy. In view of the history of a Haultain's operation, an elective lower segment caesarean section was performed at 38 weeks gestation. At operation, an obvious thin uterine wall was noted over the site of the incision.

TECHNIQUE OF HYDROSTATIC REDUCTION

Resuscitation of the patient is essential, but one need not wait until the blood pressure is normal before proceeding to carry out the procedure. In fact, as long as the inversion continues, the BP will very likely remain low.

Light general anaesthesia is used. With the douche can raised to about seven feet above the ground, the sterile tubing held in the right hand is introduced into the vagina. With an assistant helping to occlude the introitus, 3,000 to 4,000 mls of warm sterile normal saline is run in briskly. The vaginal wall can be felt to balloon out and the cervical ring stretched and lifted up.

At this stage, the critical step for the successful performance of the procedure is carried out. Using the knuckles or carefully, with the finger tips, a small dimple is created by gentle pressure on the lowermost part of the inverted fundus. Once this dimple is created, the pressure in the vagina gently and rapidly reduces the inversion. Without this extra step, the

TABLE I
Summary of 8 cases of Acute Uterine Inversion

Patient	Age	Parity	Gestation (weeks)	Delivery	Status of Accoucheur	Delivery of Placenta	Interval Between Inversion & Reduction (hours)	Method of Reduction
1	20	1	40	N	H.O.	CCT	2¼	Haultain
2	24	2	?	N (Flying Squad)	Rural Midwife	?	7½	Haultain
3	21	1	40	N	H.O.	CCT	1	Haultain
4	22	1	39	N	H.O.	CCT	3	Hydrostatic
5	34	7	?	? (Flying Squad)	G.P.	CCT	3¼	Hydrostatic
6	29	3	39	N	Midwife	CCT	3	Hysterectomy
7	19	1	36	N	H.O.	CCT	1	Hydrostatic
8	25	3	39	Breech	M.O.	CCT	2	Hydrostatic

CCT = Controlled Cord Traction
H.O. = House Officer
M.O. = Medical Officer

hydrostatic technique is less likely to succeed and will require a longer time.

With the hand kept in-situ and with the douche still flowing, ergometrine is given intravenously. Simultaneously, a normal saline drip with 100 units of Syntocinon is infused rapidly. The hand must be kept in until the uterus is felt to contract and more important, the cervix is felt to reform firmly and clamp on to the wrist. Then and only then is the hand withdrawn. Syntocinon drip is maintained for the next six hours. No uterine packing is used.

DISCUSSION

The data reveals some important features. In six cases, the deliveries were conducted by junior House Officers or midwives. One case (No. 5) was delivered in a private maternity home. In seven cases, controlled cord traction was used to deliver the placenta. Case No. 2 was conducted by a rural midwife and the mode of delivery of the placenta was not known. All the cases except one were normal deliveries. There is a preponderance

of primiparas; 50% in this series was in this category.

The combination of inexperienced accoucheurs and CCT is the most significant aspect of this series. While it is possible that occasionally no obvious etiological factors may be present, most authorities would agree that mismanagement of the third stage is the most potent cause. (Kitchin et al., 1975).

In most cases in this series, there were several hours delay between the development of inversion and its reduction. This delay would have made manual reduction difficult and dangerous. Hydrostatic reduction by contrast is gentle, minimally traumatic and easy once the importance of creating a dimple to act as a lead is realised.

Some authorities do not favour oxytocics (Dewhurst and Bevis, 1951) in case the inversion has not been completely reduced. Incomplete reduction will not occur with the Hydrostatic method. Oxytocics are vital to ensure contraction

of the uterus and prevent recurrence of the inversion. Immediately after reduction, the uterine cavity and the cervical canal are so grossly dilated that it is difficult if not impossible, to note where the vagina, cervical canal and uterine cavity beings and ends. In such a situation, recurrence of inversion and severe haemorrhage are very real possibilities.

Although some authorities advocate uterine packing (McHenry, 1960), it was not used here. It is unnecessary, prevents involution and greatly increases the risk of infection. The possibility of immediate recurrence of inversion is easily obviated by oxytocics.

Operative intervention should only be resorted to if reposition via the vaginal route fails. Incising the uterus creates a scar much like a classical caesarean scar with all its inherent disadvantages. Abdominal delivery is thus often necessary at subsequent pregnancies.

The incidence of inversion in this series is extremely high. The unbridled enthusiastic rush to use CCT by inexperienced accoucheurs must be checked.

SUMMARY

Eight cases of acute inversion of the uterus are presented. The association of relatively inexperienced staff with CCT in inversion is strong. A description of the hydrostatic method of reduction with an important additional step is given.

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