PUERPERAL INVERSION OF THE UTERUS

(Three Case Reports)

by

BARUN KALA SINHA,* M.B.B.S., M.S.

and

M. QUADROS,** F.R.C.O.G.

Puerperal inversion of the uterus is one of the serious and dangerous obstetrical emergency. Fortunately it is rare. It is spontaneous in a number of cases. But many additional factors are incriminated in its aetiology.

The rarity of this serious obstetrical complication prompted the authors to present this paper. Three cases were seen in Bhagalpur Medical College Hospital between the period from April, 1974 to July, 1977. Evaluation of immediate reposition and management of shock is also discussed. Short history of the cases is appended below.

Case 1

Mrs. K. K., primipara aged 22 years, delivered at home by an untrained "dai" 48 hours back was received in the labour room of B.M.C.H. on 8-12-76 in a moribund condition. She went in shock after delivery during the attempt made by dai to deliver the placenta. A local doctor was called for and resuscitation was done. When the condition slightly improved the doctor referred her to B.M.C.H.

On examination the patient was remarkably pale. Her pulse was 110 per minute, blood pressure 110/70 mm Hg. Temperature was normal. Cardiovascular and respiratory systems were within normal limits.

*Resident Surgical Officer.

**Professor & Head.

Department of Obstetrics & Gynaecology, Bhagalpur Medical College Hospital, Bhagalpur (BIHAR).

Accepted for publication on 8-11-1977.

On abdominal examination the uterine body was not felt in the lower abdomen. Instead, a vague fullness was palpated just above the pubic symphysis which was very tender. Local examination did not reveal any mass outside the vulva except a long piece of aminiotic membrane hanging outside the introitus. On speculum examination a fleshy, congested, oedematous mass with raw surface inside vagina was seen. Cervix was not seen or felt and upper margin of the mass seemed to be merging high up with the vagina. Uterine sound could not be passed.

A provisional diagnosis of puerperal inversion was made and 600 ml. of blood was transfused before undertaking reposition. She was put on Terramycin 100 mgm I.M. 8 hourly. Antitetanus serum 1500 I.U. was also injected I.M. after sensitivity test. As the inverted mass inside vagina was infected, huge and bulky, an attempt was made to clear the local sepsis and reduce the size of the inverted mass by packing the vagina with glycerine and acriflavin. General condition of the patient improved. She was examined under anaesthesia on 10-12-76, Reposition of the uterus was tried manually as well as with hydrostatic pressure. These attempts failed. Laparotomy was undertaken on 11-12-76. On opening the abdomen both ovaries and fimbriated end of the tubes were lying just outside the depression caused by inverted. fundus. Haultain's operation was performed keeping in view her young age and future obstetric career. The patient did well. Postoperative period was uneventful except wound sepsis for which resuturing was needed. The patient was discharged on 31-1-1977.

Case 2

Smt. R. D., aged about 20 years, primipara

delivered at Godda Sadar Hospital on 25-7-77 at 11.40 a.m. was brought to the B.M.C.H. on 27-7-77 at 6 P.M. She was admitted to Godda Sadar Hospital where she delivered normally under supervision of a paramedical personnel after 3 days of uterine inertia. There was difficulty in delivery of the placenta. Patient had postpartum bleeding. She was given intravenous glucose transfusion. By next evening patient was all right and discharged from the hospital on request. At home in the midnight of 26th June she squatted for micturition and a big clot of blood was expelled from the vagina followed by a huge red mass. Immediately she was rushed to Godda Hospital and readmitted there. Resuscitation was done and then she was transferred to B.M.C.H. On examination patient was of average built, she was looking very pale. Pulse was 140 per minute. Blood Pressure 110/70 mm Hg. Temperature 101°F. Chest was clinically normal. On abdominal examination uterus was not palpable but lower abdomen was very tender.

On pelvic examination the whole uterus had turned inside out and was hanging outside the vaginal introitus as seen in Fig. 1. The patient had not passed urine since the catastrophe. Catheterisation was done and bladder was emptied. Bimanual examination was omitted as there was no doubt in diagnosing the case as puerperal inversion of 3rd degree. She was put on Diazepam 10 mgm I.M. stat and Terramycin 2 cc. I.M. 6 hourly. 600 ml. of blood was transfused after the temperature settled down to 99°F by Novalgin 5 ml. given I.M. The local sepsis and oedema were improved with the help of dressing with acriflavin and glycerine.

Examination under anaesthesia was done on 29-7-1977 keeping the operation theatre ready for laparotomy. Manual reposition was tried but succeeded only in bringing the huge mass inside the vagina. Above that, manoeuvre was traumatic to the endometrial surface of the uterus. Reposition with hydrostatic pressure also failed. Laparotomy was undertaken which showed the dragged ovaries and tubes inside the cup of inverted fundus as seen in Fig. 2.

Reposition could be achieved by gently pulling up the anterior and posterior part of the inverted body of uterus with the help of Allis's forceps at the same time pushing up the inverted mass from the vagina by an assistant. Luckily we did not need cutting the ring of the cervix. After completion it was noticed that minor traumas were caused due to pull of Allis's forceps as can be seen in Fig. 3.

300 ml. of blood was again transfused during operation. Postoperative period was uneventful except slight sepsis of the wound. Stitches were removed on 9th postoperative day and patient went home after complete recovery on 14-8-1977.

Case 3

Smt. S. K., aged 38 years, 5th para was admitted in labour room on 26-5-77 with complaints of 9 months' amenorrhoea and mild labour pains for the last 8 hours. Her all previous deliveries were normal at home. On examination her pulse was 86 per minute, blood pressure was 120/80 mm Hg. Uterus was full term size with left occipito anterior position, foetal heart rate was 140 per minute, regular, head was not yet engaged.

Pelvic examination revealed that the cervix was half taken up, 2 figurs dilated, membranes were absent and pelvis was adequate. She was given warm water enema and mild sedation. Uterine contraction gradually increased but not satisfactorily. As there was hypotonic type of uterine inertia, 2.5 units of syntocinon in a pint of 5% glucose was started intravenously at about 11 P.M. Labour progressed but 2nd stage was prolonged. Therefore forceps were applied under general anaesthesia and a male alive baby was extracted. There were two loops cord round the neck. Cord was clamped and cut. A big, red, fleshy mass with attached placenta came out spontaneously out of the introitus. Placenta was separated and removed from the inverted fundus. There was no difficulty in separating the placenta. Immediate reposition was done as the patient was already under general anaesthesia. The inverted fundus was reposed manually, first into the vagina and then gradually, through the dilated cervix, up in its normal position. Ergometrine 0.5 mgm. was injeected intravenously, keeping the hand still inside the uterine cavity. Uterine cavity was packed to prevent recurrence.

Immediately 600 ml. of blood was arranged and transfused. Dexamethasone 8 mgm was also given intravenously to combat the shock. The pulse settled down to 120 per minute, blood pressure rose to 120/76 mg.Hg. in about an hour. Uterine pack was removed after 24 hours. Post operative recovery was smooth and uneventful.

She was discharged on 14-6-1977, in a fair health.

Discussion

The incidence of puerperal inversion varies according to the availability of obstetric care given during labour. Das (1940) has given an incidence of 1 in 23, 127 labours. In the present study the incidence of puerperal inversion was calculated to be 1 in 6,439 labours between April, 1974 to June, 1977.

Inversion of uterus is said to be more common in primiparae than in multiparae. In Jacob and Bhargava (1964) series, 2 were primiparae and 6 multiparae. In Jhirad's 10 cases, 4 were multiparae and 6 primiparae. The explanation put forward is that uterine inertia is more often seen in primipara after a protracted labour. We think frequency of inversion depends more on the nature of obstetric practice than on parity. In the present study 2 were young primiparae while 1 was a multiparous woman.

The age incidence of inversion of uterus is also said to vary. 53.6% of the cases reported by Das (1940) occured between 21 and 30 years. In these 3 cases the age incidence is as reported by Das (1940).

Most of the cases of puerperal inversion are home deliveries conducted by untrained "dai" and then transferred to hospital. Now-a-days more and more patients are attending the hospital for confinement and we wish to lower the incidence by our better obstetric care during confinement. The first case reported here was delivered in a far interior village and conducted by an untrained "dai". We think that perhaps this was a case of mismanagement of third stage of labour. The cause of inversion in the 2nd case seems to be uterine inertia with badly managed 3rd stage of labour. The cause of inversion in the 3rd case can be attributed to fundal attachment of the placenta with shortening of the cord due to winding around the neck of the foetus. Additional factor for inversion was uterine inertia in the third case.

As far management is concerned if inversion of uterus occurs during properly managed labour it should immediately be reposed under general anaesthesia. This view of immediate reposition is in agreement with Daruwala and Vijayakar (1973). Very often the cases are of home deliveries and transferred to hospital in a moribund condition as the first and second cases reported here. In such cases patients are usually in a bad condition with very low haemoglobin and the inverted uterus is infected and bulky with oedema and cogestion. It becomes difficult to repose the bulky mass. Therefore, it is advisable to combat the anaemia by blood transfussion and haematinics and clear the local sepsis by means of antibiotics; and to lessen the oedema of inverted mass by raising the foot end of the bed, sometimes by knee-chest-position and vaginal packing with glycerine and acriflavin and then try reposition first manually and if that fails, by laparotomy.

Acknowledgement

We wish to thank Dr. B. N. Jha, Superintendent, Bhagalpur Medical College Hospital, Bhagalpur for allowing us to publish the hospital data.

References

1. Das, P. C. J.: J. Obstet. and Gynaec. Brit. Emp. **47**: 525, 1940.
2. Daruwala, S. S. and Vijayakar, I. V.: J. Obstet. and Gynaec. India. **23**: 371, 1973.
3. Jhirad, J.: quoted by Masani, K. M. Text Book of Gynaecology, Ed. 4, Bombay, 1964, Popular Prakashan.
4. Jacob, S. I. and Bhargava, H.: J. Obstet. and Gynaec. India. **19**: 134, 1964.

See Figs. on Art Paper V