ANALYSIS OF THIRTEEN CASES OF PUERPERIAL INVERSION OF UTERUS

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SUMMARY

Thirteen cases of puerperial inversion have been discussed, younger and primipara are more vulnerable for inversion of uterus, if IIIrd stage of labour is mismanaged. Immediate resuscitation and manual reposition in acute cases is method of choice of treatment, with minimum possible morbidity and mortality. Subacute cases are best managed by surgical methods after correcting anaemia and sepsis.

Introduction

Acute inversion of the uterus is a catastrophy which no obstetrican would like his patient to develop. It is rare but dangerous complication of labour.

Inversion uterus is a rare but dreadful complication of puerperium. It's incidence varies from one in 2,000 to one in 30,000. Its frequency being one in 8,537 in Indian hospitals (Ashar and Domadia, 1969).

Material and Methods

The present retrospective study comprised of 13 cases of peurperal inversion of uterus, managed since 1976 to August, 1983 in Umaid Hospital, attached to Dr. S.N. Medical College, Jodhpur. During this period, total hospital deliveries were 38,981 and incidence in this series works out to one in 2,998 deliveries.

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Observations

In the present series, 10 (76.9%) out of 13 cases were unbooked and 6 (46.2%) belonged to rural area. Ten (76.9%) cases had their deliveries at home under supervision of traditional birth attendants. Ten (76.9%) were under 25 years of age and only 1 was of 36 years of age. Nine (69.3%) were primipara, 3 (23%) were IIIrd para and only one was grand multipara (Table I).

Five patients developed inversion within 24 hours and 4 of them were diagnosed immediately by attending doctor or midwife. Eight (61.5%) cases might have developed it earlier, but were diagnosed at later dates. Hence 3 (23%) cases reported to hospital within a week, while 6 (46.2%) came after 6 weeks of confinment (Table II).

Symptoms reported by patients were post-partum haemorrhage in 3 (23%),

TABLE I
Distribution According to Age and Parity

S. No.	Age (in years)	Cases No.	Cases %	Parity	Cases No.	Cases %
1.	Below 20	4	30.7	I	9	69.3
2.	20-25	6	46.2	II	0	0.0
3.	26-30	2	15.4	III	3	23.0
4.	31-36	0	0.0	IV	0	0.0
5.	Above 36	1	7.7	V and above	1	7.7
	Rural cases	— 6;		Urban cases	— 7;	
	Booked	— 3;		Unbooked	—10.	

TABLE II
Day of Onset and Reporting to Hospital

S. No.	Day of onset	Cases No.	Cases %	Reporting to hospital	Cases No.	Cases %
1.	24 hours	5	38.5	Immediately	4	30.8
2.	2nd to 7th day	3	23.0	Within a week	3	23.0
3.	8th to 21st day	1	7.7	2-6 weeks	0	00.0
4.	21st to 42nd day	4	30.8	After 6 weeks	6	46.2
		13	100.0		13	100.0

retention of urine in 2 (15.4%), severe pain in abdomen in 3 (23%) feeling of heaviness in vagina in 5 (38.5%), persistant blood stained discharge in 6 (46.2%) and sinking, giddiness due to shock in 3 (23%) cases. Three patients were having foul-smelling seropurulent discharge.

Four patients (30.8%) had acute inversion of uterus, associated with signs and symptoms of neuro-haemorrhagic shock, while rest 9 (69.3%) reporting at later date came as subacute type of inverson. Seven cases (53.8%) had complete inversion of uterus that is IIIrd degree, while rest 6 (46.2%) were having IInd degree uterine inversion (Tabl IV).

TABLE III
Treatment Given

S. No.	Treatment	Cases 9	Cases %
1.	Blood transfusion	9	69.3
2.	I.V. fluid therapy	13	100.0
3.	Broad spectrum antibiotics	13	100.0
4.	Total dose iron therapy	6	46.2
5.	Manual reposition	3	23.0
6.	O'Sullivan reposition	1	7.7
7.	Haultain's reposition	5	38.5
8.	Spindell's reposition	4	30.8

Mortality—One due to septic and haemorrhagic shock
Morbidity—Sepsis in 3 cases
One had tubectomy on 6th day—IIIrd gravida Hospital delivery, manual reposition done in L.R.

In five (38.5%) out of 13 cases, history of mismanagement of IIIrd stage of labour in the form of cord traction and fundal pressure was available. Associate PPH was found in 3 (23%) cases. No case had any manual removal of placenta, prophylactic ergometrine therapy, precipitate labour, and oxytocin induction/acceleration of labour.

Eight cases (61.5%) had moderate to severe degree of anaemia (Hb below 7 gms%), while rest 5 (38.5%) were having mild degree of anaemia (Hb 9 gm%).

Signs of p. sepsis were present in 3 (23%) cases, cases with retention of urine were 2 (15.4%) and were having microscopic pyouria.

Management

Of the 4 cases (30%) who reported within 24 hours of delivery, 3 (23%) delivered at our hospital had manual reposition after being resuccitated by blood transfusion and I.V. fluids. The remaining I patient was referred from rural area was resuscitated, manual reposition was tried, but it failed, O'Sullivan's reposition was tried, partially reduction could be done, but the due to prolonged shock and sepsis, patient died within two hours of admission.

Nine (69.3%) patients had blood transfusion and 6 (46.2%) were given total dose iron therapy. When sepsis and anaemia was controlled, remaining 9 (69.3%) cases were taken for surgical reposition as subacute cases. Five patients had Haultain's and 4 had spinelli's reposition.

Maternal Mortality

Only one (7.7%) patient was lost out of 13, treated. This case had home delivery in early morning, was transferred to our hospital on the same day evening, but could not be saved due to irreversible haemorrhagic and septic shock.

Discussion

It is difficult to determine with accuracy the incidence of inversion of uterus, which varies from one in 2,000 to one in 30,000. Many cases of uterine inversion occuring in rural areas may soon die of neuro-haemorrhagic shock and hence remain undiagnosed and unreported

Significantly, 10 cases (76.9%) belonged to younger age group that is under 25 years of age and 69.3% were primiparae in present series. The figures are consistent with figures of 74.1% and 64.3% reported by Pal and Devdutt (1983) and 52.67% reported by Das (1940), Harer and Sharkey (1940).

All cases had spontaneous placental delivery and definite history of fundal pressure and cord traction was available in 5 (38.5%) cases and associate P.P.H. in 3 (23%) cases, M.R.P., prophylactic methergin therapy at the beginning of IIIrd stage of labour and history of precipitate labour was absent in all cases. Mismanaged IIIrd stage of labour (35.7%), spontaneous placental delivery (64.3%), and P.P.H. (93.16%) have been reported by Pal and Devdutt (1983), Das (1940), Fenton and Singh (1950), Kitchin (1975).

In the acute inversion group rapid resuscitation by I.V. fluids and blood transfusion, followed by successful manual reposition was possible in 3 (23%) cases. In 1 patient with acute inversion, O'Sullivan's methods of reposition was tried but complete reposition was not possible. Persistant irreversible shock and sepsis ended into death of that patient.

In subacute cases, after resuscitation with blood transfusion/total dose iron

therapy in 6 (42.2%) cases, Haultain's and Spinelli's methods for surgical reposition were done in 5 and 4 cases respectively under cover of broad spectrum antibiotics.

Maternal mortality due to puerperia-linversion varies from 50% to 70% (Fenton and Singh, 1950) 25%, 43%, 14.8% and 7.6% has been reported by McCullagh (1925), Harer and Sharkey (1940), Das (1940), and Pal and Devdutt (1983) respectively.

The mortality is much lower (only 5%) if replacement is done, soon before patient develops shock, but it rises to 30% once shock has developed. In present series it is 7.7%.

References

1. Ashar, P. and Domadia, S.: J. Obstet. Gynec. India. **20: 826, 1970.**
2. Das, P.: J. Obstet. Gynec. India. **21: 398, 1971.**
3. Domadia, S. and Shah, K.: J. Obstet. Gynaec. India. **19: 406, 1969.**
4. Fenton, B. and Singh, R.: Obstet. Gynec. Survey. **5: 781, 1950.**
5. Harer, M. and Sharkey, S.: J. Obstet. Gynec. India. **21: 533, 1971.**
6. Pal, M. N. and Devdutt, B.: J. Obstet. Gynec. India. **33: 2, 1983.**