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Internal Podalic Version – A Forgotten Art (A Review of Transverse Lie at Sultania Zanana Hospital, Bhopal)

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Summary

A review was done of patients presenting with transverse lie at SZH Bhopal in year 1999. A higher incidence of 1.37% of the total deliveries is reported, probably as SZH is a referral tertiary care hospital. Operative intervention was required in all patients, it being LSCS in 96 (89.72%). Internal podalic version, in 8 (7.48%) and subtotal hysterectomy, in 6 (5.6%). Transverse lie is associated with a high maternal mortality and morbidity. It also accounts for high fetal wastage, total perinatal mortality being 4%. A plea for internal podalic version wherever feasible is made, as 93.46% patients are unbooked, most are referred as emergency admissions, with a high percentage being less than 25 years of age and of low parity. Internal podalic versions done by author between 1990-1999 are presented. IPV is much maligned to produce sepsis and uterine rupture, but in select cases where the baby is preterm or dead, where there is sufficiency of liquor, uterus relaxes between pains and mobility of fetus is good, IPV in experienced hands is comparatively safe with no incidence of rupture uterus or maternal mortality. Mild to moderate PPH controlled by medical means was seen in 5 patients, while one patient developed a VVF. One hesitates to do Caesarean Section with dead fetus, remembering that the patient is potentially infected, will go back to same environment, where there is a danger of scar rupture in next pregnancy. A judicious mind and experienced gentle hand is needed.

Introduction

A review of patients admitted with transverse lie at Sultania Zanana Hospital Bhopal from Jan 1999 to Dec 1999 was done. The occurrence of Transverse lie or shoulder presentation discourage natural delivery and an operative intervention is usually required. For term pregnancy presenting early in labour with live foetus caesarean section offers the best choice. However keeping in mind that most patients in government tertiary hospitals are unbooked emergency admissions, who may reside remote from medical facility, in preterm or nonviable fetus, especially in developing countries internal podalic version is justified unless the liquor is completely drained and the lower segment over stretched.

Material & Methods

During the year 1999, there were a total of 7817 deliveries at Sultania Zanana Hospital Bhopal, of which patients with transverse or shoulder presentation were 107 or 1.37%. The patients with transverse lie were analysed according to their booking status, immunization status, age, parity and associated factors like preterm labour, PROM, placenta previa etc. The mode of delivery along with the fetal & maternal outcome was noted and analysed.

Internal podalic version in transverse lie done by the author between 1990 and 1999 were then analysed, especially with reference to indication and any untoward effect on the mother.

Result

During the year 1999, there were 107 admissions with trasverse lie, forming 1.37% of total deliveries that year. Of these patients 100 (93.46%) were unbooked

admissions. While 89 (83.18%) were immunized against tetanus toxoid. 59.8% patients were less than 25 years of age (Table I) and 19 (17.7%) were primigravida (Table II).

Table I
Age Incidence

Age	No. of Patients	Percentage
<20 yrs.	22	20.56
21-25 yrs.	42	39.25
26-30 yrs	27	25.23
31-35 yrs	14	13.08
36-40 yrs	2	1.87
> 40 yrs	0	

Table II
Parity of Patients with Transverse Lie

Party	No. of Patients	Percentage
Primigravida	19	17.70
Para 1	30	28.03
Para 2	28	26.17
Para 3	16	14.95
Para 4	7	6.54
>4	7	6.54

Table – III
Associated Factors with Transverse Lie

Factor	No. of Patients	Percentage
Preterm Labour	39	36.49
Prom	17	15.88
Placement Previa	7	6.54
Previous LSCS	14	13.09
IUFD	34	31.78
Retained 2nd Twin	2	1.87
Hand Prolapse	58	54.20
Cord Prolapse	18	16.82
Chorioamnionitis	5	4.67
PIH	9	8.41
Anaemia Hb<7 gm%	6	5.60
Rupture Uterus	5	4.67

As seen in table III, preterm labour in 36.49% and premature rupture of membrances in 15.88% were frequently associated with transverse lie. There is a high incidence of hand prolapse (54.2%) and cord prolapse (16.82%) with 5 patients admitted with rupture uterus due to transverse lie.

As seen in table IV LSCS was resorted to as first option in 93 (86.91%) patients and in 3 patients with failed version. The 5 patients with rupture uterus underwent laparotomy followed by subtotal hysterectomy. Hysterectomy was also resorted too, in a patient of atonic PPH following caesarean section. Internal podalic version was attempted in 11 patients, it was successful in 8 patients.

Table IV
Mode of Delivery in Transverse Lie

Mode of Delivery	No. of Patients	Percentage
LSCS	93	86.91
Failed Version	3	2.80
Followed by LSCS		
IPV with BE	8	7.48
Sub Total	Rupture Uterus – 5	5.6
Hysterectomy 6	Atonic PPH -1	

Whatever, be the mode of delivery (table V) fetal outcome is poor in transverse lie especially in late admissions with retracted uterus absent membranes, hand or cord prolapse. Total perinatal mortality was high 51.4%.

Internal podalic version done by the author between 1990-1999 were next reviewed and analysed (table VI). When done for select cases of preterrn fetus or dead fetus, retained 2nd twin, with membranes recently ruptured, uterus relaxing between contractions and good mobility of fetus, the hand being introduced without force into uterus. IPV was not associated with any uterine rupture or maternal mortality. In only 5 cases there was mild to moderate PPH, seen, which was controlled by medical means. One patient developed a vesicovaginal fistula.

Conclusion

Transverse lie occurred in 1.37% of total deliveries in our hospital in year 1999, this incidence is higher than the 0:3% or 1/322 singleton deliveries reported by Johnson (1964) or 1/420 at Parkland Hospital (Cunningham et al 1989). The higher incidence is probably because Sultania Zanana Hospital is a referral tertiary care hospital draining a wide area. In transverse lie natural delivery is not possible and an operative intervention has to be resorted to. In patients presenting at term or in early labour with live fetus, Caesarean Section is the best choice. However, if the cervix is nearly fully dilated and the pelvis is normal, internal podalic version with breech extraction is justified unless the liquor is completely drained of or lower segment overstretched (Parikh 1992)

Though internal podalic version in late labour is condemned as dangerous with risk of uterine rupture, very occasionally this procedure may be justified when the cervix is fully dilated, the membranes are intact and the fetus in transverse lie is small or dead and usually both Cunningham et al 1989. Caesarean section for a dead fetus may raise special problems in developing countries such as refusal of consent, increased risk of

Table – V
Outcome of Fetus with reference to Mode of Delivery

Mode of Delivery	Term of Fetus		Weight of Baby in Kgs					Still Birth		Neo Death	AAH
	Preterm	term	<1.5	1.6 – 2.0	2.1 – 2.5	2.6-3.0	>3.0	Fresh	Macr.		
LSCS											
93	39	54	2	17	20	34	26	24	19	7	49
86.91	36.49	50.48	1.87	15.88	18.69	31.78	24.3	22.43	17.76	6.54	45.79
IPV with BE											
8	5	3	0	5	0	2	1	2	3	0	3
7.458	4.67	2.8	0	4.67	0	1.87	0.94	1.87	2.8	0	2.8
Total Perinatal Mortality									51.4		

Table – VI
Internal Podalic Version Done by Author Between 1990 – 1999

		No.of Patients	Percentage
Total Version		45	
Successful IPV with Breech Extraction		39	86.67
Failed Version Followed by LSCS		6	13.33
Preterm		28	71.8
Term		11	28.2
Still Birth / ND		30	76.92
Alive & Healthy		9	23.08
Retained 2nd Twin		3	6.66
Placenta Previa		3	6.66
Complications			
1. Mild to Moderate PPH		5	11.11
2. Rupture Uterus		Nil	
3. Maternal Mortality		Nil	
4. Maternal Morbidity	VVF	-1	

infection in neglected labour or danger of rupture of the uterine scar in subsequent pregnancy (Satoskar – Sahi 1999).

In malpresentations internal podalic version and breech extraction can be done as fetal survival is not a concern (Satoskar, 1999). We have noted a high fetal wastage (toal perinatal mortality 51.4%) regardless of the mode of delivery in transverse lie. Complications of IPV with BE include failed version in 6 of 45 cases or 13.33%. Here it is emphasized that the operation should begin as an "Examination under Anaesthesia and only if there is sufficient liquor and mobility of fetus and if, the hand can be introduced without force into the uterus, under deep anaesthesia the obstetrician should proceed with an internal podalic version. This is seldom difficult if baby is small or dead, uterus relaxes between contractions and there is sufficient liquor.

Other complications were atonic PPH, possibly due to deep anaesthesia, which was controlled immediately with oxytocin / methergin / prostodin. A single case of vesicovaginal fistula developing a fortnight after delivery was seen.

There were no cases of rupture uterus or maternal death in our study, though in their series of 6 patients undergoing internal podalic version in dead fetus, Satoskar 1999 reported one case of rupture uterus.

Reference

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