

TWO DECADES OF INTERNAL PODALIC VERSION IN A TEACHING HOSPITAL : ANY CHANGE ?

PANKAJ DESAI ● HITESHA BADIIEKA ● MALINI DESAI ● DIPTI MODI

SUMMARY

156 Internal Podalic Versions (IPV) from 67261 births over 21 years have been analysed for identification of any changes or otherwise as regards their different attributes. It was found that the frequency of versions has been remarkably constant at 1 in 500 births. There was an increase in emergency cases but the duration of pregnancy has remained constant. However, hand prolapse cases complicating transverse lies have significantly increased. Complications of the procedure have not changed in frequency of occurrence so also live births in this procedure. Babies born by IPV have become heavier over the period of time. IPV was required for less than 6% of cases of second of the twins.

INTRODUCTION

Medical College hospitals in a developing country like India are by and large tertiary care centres where emergency cases are referred in advanced labour. As a result, figures from Medical College at these institutions reflect the quality of obstetric care that a mother has an access to, during her pregnancy, in rural and remote areas.

Internal podalic version is required in

cases like transverse lie with or without hand prolapse, cord prolapse and the like. These complications are understandably preventable if such situations have been detected in time and corrective measures instituted. Over a period of time, obstetric knowledge has taken giant strides and an obstetric performance is not a matter of fear. However, there is a need to know as to whether these advances could reach out to the milling masses and thereby change the face of obstetric interventions like internal podalic versions (I.P.V.)

Dept. of Obst. & Gynec., Medical College & SSG Hospital, Baroda.

Accepted for Publication on 20.10.95

In this analysis of 21 years we have tried to find out if there has been any change in the type of subjects requiring IPV and different attributes in relation to them.

SUBJECTS & METHODS:

This is an analysis of 21 years from Jan. 1974 to Dec.1994 of subjects who had to undergo an IPV at Medical College, Baroda in its dept. of Obstetrics & Gynecology. This medical college hospital serves as a tertiary referral centre for 4 districts of the state including Baroda, Bharuch, Kheda and Panchmahal. These areas have a large tribal belt at long distances of beyond 100 Kms.from the institution.

Analysis of all subjects who had to undergo IPV during the study period was done as regards the indication for version, cervical dilatation at the time of version and associated technical details. Also a detailed analysis was made regarding the complications during delivery and post partum. These

facets in relation to IPV were grouped into four groups of 5 years each and results so obtained studied to identify any change in them over this period of time.

RESULTS

During this study period of 21 years there were 67261 births at the institution. Of these, 156 required an IPV bringing its overall incidence to 0.23% or about 2 per 1000 births. Analysing this figure further, it was found that the incidence of IPV continued to be by and large constant, as shown in Table I.

It was important to note that the number of cases which were not booked at the institution and had no standard antenatal care (therefore referred to as "emergency" cases) rose from 20.24% in the first part of the study to 32.85% in the last years of the study. This difference was statistically significant ($P < 0.01$). However, the duration of pregnancy at which IPV was required remained by and large

Table I
Indications and Weeks of Gestation

Year Group	74-78		79-83		84-88		89-94		Total
Incidence (%)	0.26		0.24		0.25		0.20		156
Emergency cases	No.	%	No.	%	No.	%	No.	%	
	28	20.44	28	20.44	36	26.28	45	32.85	137
Wks. of Gest.									
30 - 32	03	17.65	04	23.53	05	29.41	05	29.41	17
33 - 36	16	22.53	20	28.17	18	25.35	17	23.04	71
More than 36	18	26.47	17	25.00	19	27.94	14	20.18	68

Table II
Associated Conditions

Year Group	74-78		79-83		84-88		89-94		Total
	No.	%	No.	%	No.	%	No.	%	
Hand prolapse	16	19.04	18	21.43	24	28.57	26	30.95	84
Cord Prolapse	19	24.35	19	24.35	22	28.21	18	23.08	78
Acc. Haemorrhage	00	-	02	66.66	00	-	01	33.33	03

Table III
Intrapartum Complications

Year Group	74-78		79-83		84-88		89-94		Total
	No.	%	No.	%	No.	%	No.	%	
Failed version	00	—	01	33.33	01	33.33	01	33.33	03
Rupture uterus	00	—	00	—	01	33.33	00	—	01
Vaginal Laceration	00	—	00	—	01	33.33	02	66.66	03
M.R.P.	19	25.33	18	24.00	18	24.00	20	26.66	75

constant. (Table II)

Interestingly, more babies are referred with hand prolapse now, than previously as shown in the Table. The difference was statistically significant ($P < 0.001$). However other associated conditions did not show any significant difference over these two decades.

Of these, 156 IPV's only 10 i.e. 6.41% were for second of the twins. (Table III)

IPV continued to be safe for the mother at the institution with only one rupture

at version and three failures in last 21 years in 156 IPV's. Two of these were attributed to inadequate relaxation during anaesthesia. MRP (Manual removal of placenta) was done in about 20% to 25% cases. This was most of the times due to a desire to complete the delivery process faster with the subject being under anaesthesia and the hand inside the uterus. Cervical dilatation at the time of decision of IPV was 8-9 cms in 36 cases and full or 10 cm in 120 cases. However by the time IPV was done

Table IV
OUTCOME

Year Group	74-78		79-83		84-88		89-94		Total
Outcome	No.	%	No.	%	No.	%	No.	%	
Live birth	08	26.66	04	13.83	09	30.00	09	30.00	30
Early Neonatal Death	03	27.27	03	27.27	04	36.36	01	9.09	11
Maternal Mortality	00	—	01	50.00	01	50.00	00	—	02
Episiotomy Gaping	02	40.00	01	20.00	01	20.00	01	20.00	05

Table V
Birth Weights

Year Group	74-78		79-83		84-88		89-94		Total
Weight (gms)	No.	%	No.	%	No.	%	No.	%	
More than 3000	01	10.50	01	12.50	03	37.50	03	37.50	38
2500 - 3000	06	17.14	06	17.14	11	31.43	12	34.29	35
2000 - 2500	11	20.00	16	29.09	16	29.09	12	21.82	55
1500 - 2000	09	20.95	12	29.28	10	24.19	10	27.39	41
1000 - 1500	05	31.25	06	37.50	02	12.50	03	18.75	16
Less than 1000	00	—	01	100	00	—	00	—	01

under deep general anaesthesia, all mothers had full dilatation of cervix. No version was done with less dilatation. (Table IV)

Though at the institution IPV's are not done by and large, if the babies are alive, remarkably consistently live babies continued to be born on IPV. The reasons found for these were :-

- Severe fetal distress

- Congenitally malformed baby
- Very preterm baby

In some cases % placental abruption where quick evacuations of uterus had become an emergency necessity the baby, whether live or dead, was discounted. There were 3 such cases in last 21 years.

However, 11 of those 30 babies died in early neonatal period, 8 due to pre-

maturity leading to hyaline membrane disease, 2 due to severe birth asphyxia and 1 due to major congenital malformation, incompatible with life.

Amongst the live babies, 2 had fractures of the thigh bone.

There were two maternal mortalities in mothers who had undergone IPV. One of them died due to adult respiratory distress syndrome and the other due to septicaemia.

As regards other post partum complications, urinary tract infection and genital tract infection in the form of puerperal sepsis were constant in incidence all throughout the two decades of study period. (Table V)

Interestingly, babies born to mothers undergoing IPV are now more heavy as compared to the early 5 yrs. of the study. Six babies in last 10 yrs. compared to 2 babies in the first 10 yrs. were more than 3200 gms. Similarly, 29 babies in last 10 yrs. compared to 12 in first 10 yrs. were weighing more than 2500 gms. The difference was statistically significant ($P < 0.001$).

DISCUSSION

Many constancies and some newances have occurred in IPV during the last 21 years of study. IPV is still required to be performed once in every 500 deliveries at the institution. In 1955 this was the frequency in Singapore (Roddie - 1955) and the same in 1967 at Queen Charlotte's Hospital, London (Chapman - 1967). However at a typical teaching institution of Indian set up we constantly continue to have this frequency as late as in 1994.

This frequency of IPV in the present

series, requires to be evaluated in the light the fact that cases being referred as hand prolapse have significantly increased over the period of two decades. This is interesting. Any obstetrician with a reasonable experience with this procedure will bear with the fact that hand prolapse makes version more difficult than when hand has not prolapsed. One possible reason for this rise in hand prolapse could be an attempted intervention before reference. With the frequency of qualified specialists definitely increasing at secondary referral centres, it is likely that attempts might have been made for some intervention. It may not be possible to prove this conclusively as reference notes may not bear such information.

Intrapartum complications have varied between 1% to 3% and this figure has neither increased nor decreased over the period of study. Dreaded complications of a rupture uterus or broad ligament hematomas are rare, thus vouching for the continued safety of this procedure.

Babies delivered through IPV have been heavier over the period of time. There is a distinct possibility that versions for lighter babies may have been successfully completed in secondary referral centres and heavier babies referred. There may be an association between hand prolapse and such babies, as well.

Less than 10% of IPV were done for second of the twins. Also, there is no change in this incidence over a period of time. This indication was present in 51.7% of IPV reported by Chapman (1967). Two of the authors have been taking examinations of M.B.B.S. and M.D. students of different universities. Both have found

that the first and probably now the only indication for IPV mentioned by most of the examinees at these examinations is second of the twin. This is a noteworthy matter being brought to the notice of teachers of the subject. In India most IPV's are still done for transverse lie with or without complications as has been shown in this study.

ACKNOWLEDGMENTS

The authors are thankful to the Dean, Medical College, Baroda and the Superintendent, SSG Hospital, Baroda for their permission to use and publish hospital statistics.

REFERENCES

1. *Champman K.: J. Obstet. Gynec. Ind. 368, 1967.*
2. *Roddie T.W.: Med. J. Malaya 10, 162, 1955.*