

A STUDY OF PERINATAL MORTALITY IN A REVIEW OF 418 CASES OF MULTIPLE PREGNANCY

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SUMMARY

In spite of much improvement in the obstetric service perinatal mortality is still alarming. This is a group specific study of perinatal mortality in a review of 418 cases of multiple pregnancy with an incidence of 26.9 per cent. Perinatal death is more in second baby 27.12 per cent because of operative interference, greater delivery interval and prematurity. It is higher in teenager and 3 times more than singleton pregnancy (8.8%). Perinatal mortality is double in unbooked cases, whereas in booked cases it is only 13.4 per cent.)

Introduction

In these days of modern obstetrics perinatal mortality is the yard-stick of obstetric service in an institution. The average incidence of perinatal mortality in different institutions throughout the country is still alarming. Group specific incidence of perinatal mortality in multiple pregnancy has been hardly recorded.

Materials and Methods

This is a retrospective study of 835 babies which includes 2 sets of triplets and excludes 3 babies which were confined outside. Out of 418 cases of multiple pregnancy delivered in Chittaranjan Seva Sadan and Hospital from 1st January 1981 to 31st December 1984. It excludes all births at or under 28 weeks of gestation.

TABLE I
Perinatal Loss in First and Second Twin

	Number of babies	Still birth	Neonatal death	Total death
First twin	415	35 (8.43%)	70 (16.86%)	105 (25.3%)
Second twin	418 2 (triplets)	50 (11.96%)	68 (16.26%)	118 (28.22%) 2 (triplets)
	835	85	138	225

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Results

In our study excluding 3 babies which were confined outside, 225 babies were

TABLE II
Perinatal Mortality in Relation to Maternal Age

Age group in years	Number of babies delivered	Perinatal death	Percentage
16-25	173	106	61.3
26-35	409	64	15.6
36-40	253	55	21.7
	835	225	

lost out of 835 deliveries resulting in an incidence of 26.9 per cent in comparison to 8.8 per cent in single-pregnancy in this institution.

The incidence of still birth, neonatal death, as well as perinatal mortality in the first and second twins are compared. Third babies of the two triplets died in the neonatal period. Fourteen first and 14 second babies had ante-partum death. In this series more second babies were lost while Waddel and Hunter (1960) Aaron Silverman and Halperin (1960) observed higher mortality in first twin.

Perinatal mortality is highest viz. 61.3% in the age group 16-25 years, but it again rises in the age group 36-40 years viz. 21.7%. Joseph (1964) was of the opinion that perinatal mortality increases from 31

years onwards.

Perinatal mortality in relation to both weight and other associated factors: It is observed that perinatal mortality is inversely proportional with the birth weight of the baby. About 70% per cent of the babies weighing 3 lbs. or less died, while 6 per cent of the babies weighing more than 5 lbs. were lost. Sixty-nine per cent of the babies survived amongst those weighing more than 4 lbs., whereas thirtynine per cent of all babies weighing 4 lbs. or less survived.

Out of 180 babies lost in the weight group 4 lbs and under, in 177 cases i.e. 65 per cent, prematurity was the only factor.

Complications like toxæmia, eclampsia, antepartum haemorrhage, anaemia and hydramnios were also associated with 15

TABLE III
Perinatal Loss and the Method of Delivery in First and Second

Method of delivery	First twin Number of cases	No. of babies lost	Second twin Number of cases	No. of babies lost
Spontaneous delivery	395	98 (24.8%)	376	102 (27.12%)
Forceps	6	1	7	2
Internal podalic version and breech extraction	2	1	18	8
Breech extraction	2	1	7	2
L.U.C.S.	9	3	9	3
Decapitation	1	1	3	3
Total operative delivery	(11 + 9*)	(4 + 3*)	(35 + 9*)	(15 + 3*)
Total delivery	415	105	420	120

* Indicates babies delivered by L.U.C.S.

perinatal deaths out of 45 in the weight group above 4 lbs. So apart from prematurity associated complications are also contributory factors.

In our study 18 babies were delivered abdominally. Vaginal operative delivery was done in 46 out of 817 with an incidence of 5.6 per cent. In the first twin the incidence was 2.4 per cent and in the second twin it was 8.5 per cent.

Higher incidence of operative delivery has been reported by Western authors. It was 20.3 per cent with Brown and Dixon (1963) and 82.3 per cent with Aaron *et al* (1961). It is obvious from the above Table that mortality in the second twin is higher than the first both after spontaneous and operative delivery.

Perinatal mortality and the delivery interval of second twin: Opinion varies amongst the authors regarding the optimum interval between the deliveries of the first and second twins. In our observations excluding abdominal deliveries the delivery interval of the first and second twins was 20 minutes or less in 60 per cent of cases; 75 per cent of the second babies were delivered within 30 minutes or less after the first babies were born. Only 4.1 per cent of the babies were confined after one hour or more.

In this series excluding 5 babies which were macerated, 70 babies were delivered more than 30 minutes after the birth of the first baby. No interference was done in 40 cases where in 15 babies were lost 37.5 per cent. In the other 35 cases some interference ranging from artificial rupture of membranes, oxytocin drip, internal podalic version and other complicated obstetric procedure was undertaken but 15 babies died 42.8 per cent. macerated, 70 babies were delivered more than 30 minutes after the birth of the first baby. No interference was done in 40

cases where 15 babies were lost (37.5) per cent. In the other 35 cases some interference ranging from artificial rupture of membrane, oxytocin drip, internal podalic version and other complicated obstetric procedure was undertaken but 15 babies died 42.8 per cent.

In this series perinatal mortality was 24.8 per cent and 27.12 per cent respectively where the delivery interval was 20 to 30 minutes or less. But perinatal mortality was higher 42.8 per cent considering all cases where the delivery interval exceeded 30 minutes and operative interference was undertaken.

Comments

In the above series foetal wastage is high with unbooked cases and prematurity is by and large the main factor.

Danger to the second babies increases as the delivery interval was prolonged and from our observations it should not be delayed more than 30 minutes. Apart from this lesser birth weight, malpresentation and method of delivery play a great role. It has been observed that undue hurry in the delivery of the second twin does not improve the result.

Average perinatal mortality is 26.9 per cent which is about 3 times more than single pregnancy. In booked cases it was low viz. 13.4 per cent. This corresponds with that of Ghosh and Dutta (1965) and Mitra and Sikder (1980).

Prematurity is responsible for higher perinatal loss. Associated complications like P.E.T., eclampsia, anaemia, hydramnios, A.P.H. etc. are also large contributory factors.

Incidence of operative delivery and mortality is considerably higher in the second babies because of frequent interference and still higher if the delivery in-

terval between the first and second twin exceeds 30 minutes. Apart from this, individual skill and expertise during the delivery of the babies plays a great role in reducing the perinatal mortality.

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