

PERINATAL MORTALITY OF TWIN FETUSES AND NEWBORNS

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Out of 446 twin births in 1946-1971, 177 (19.8%) were stillborn or perinatally dead. The main reason of twin perinatal mortality is prematurity, which is also confirmed by clinical and anatomopathologic findings. The essential role in the reduction of perinatal mortality is being attributed to ambulatory "K" Centres through early diagnosis of multiple pregnancy and pregnant women hospitalization at 30-32 weeks of pregnancy.

The number of births that took place at the Clinic in the time span of 1946-1971 amounts to 34,248 including 446 twin births (1.3% = 1 : 77). While the number of twin births in the postwar time was high (1.6% in 1946-1954) it tends to decline in recent years (1.3% in 1955-1963 and 1.0% in 1964-1971) (Table 1).

The over-all perinatal mortality for 446 pairs of twins born at the Clinic comprises 177 fetuses and newborns (19.8%).

Analysis of reasons for perinatal mortality of fetuses and newborns from a twin pregnancy revealed but a slight influence of factors such as age and parity of mothers, though most women giving birth to twins are multiparae from families with many children. A great number of gynecologic procedures applied in twin pregnancy, especially in the second fetus, mainly because of abnormal position, is also of negligible significance, as regards the perinatal mortality of twins. What we can state, however, is that prematurity is mainly responsible for the mortality of fetuses and newborns in twin pregnancy.

A vast majority of fetuses and newborns, stillborn or dead in the perinatal period (89.3%), is made up by premature fetuses weighing less than 2200 g, whereas fetuses and newborns weighing more than 2200 constitute only 10.7% (Table 2).

It is to be stressed that, out of the total number of fetuses and newborns that were stillborn or dead in the perinatal period, as many as 83 cases (46.9%) concerned fetuses incapable to live, with a body weight below 1001 g (Table 2).

These facts are of importance for the clinical and anatomopathological diagnosis of the cause of death.

A close correlation between the perinatal mortality and the body weight of fetuses and newborns is shown in Table 3.

While the percentage of mortality in twins weighing more than 2000 g is small (6.8%) and still smaller in children with greater body weight (3% in fetuses weighing 2501-3000 g

Table 1. *Twin Births and Perinatal Mortality*

		1946-54	1955-63	1964-71	Total
Total number of births		10,810	12,956	10,492	34,258
Twin births	N	171	171	104	446
	%	1.6	1.3	1.0	1.3
Perinatal mortality of twins	N	82	55	40	177
	%	24	16	19	19.8
Mortality of twins with body weight < 1501 g	N	57	42	34	133
	%	69.5	76.4	85	75.1

Table 2. *Perinatal Mortality of Twins*

Cause of death	Full-term (> 2200 g)		Premature (1001-2200 g)		Total
	Liveborn	Stillborn	Liveborn	Stillborn	
Anoxia, respiratory distress syndrome	7	4	36	9	56 (31.6%)
Perinatal trauma	1	1	11	—	13
Prolapse of umbilical cord	—	3	—	3	6
Infections	1 (bronchop.)	1 (lu.)	5 (4 bronchop. + 1 toxoplasm.)	3 (2 lu. + 1 toxoplasm.)	10
Congenital malformations	—	1	4	2	7 (+ 4)
Rh incompatibility	—	—	2	—	2
Birth weight ≤ 1000 g	—	—	58 (2 congenital malformations)	25 (2 congenital malformations)	83 (46.9%)
Total	9	10	116	42	
	19 (10.7%)		158 (89.3%)		177

and 2.5% in fetuses above 3000 g), mortality tends to increase in fetuses with a body weight below 1501 g (64.6%), while for fetuses weighing up to 1000 g it is 100%.

In recent years, the over-all mortality of twins was found to be slightly lower (17.7% in 1966-71) than in the postwar period (20-25% in 1946-1955).

This fact is undoubtedly connected with the widespread action of the Consultation Centre "K" which promotes a mostly quick hospitalization of women with "high-risk pregnancy". It is striking that with the reduction in the over-all perinatal mortality of twins in recent years, the number of premature babies has considerably increased (88.9% in 1966-71, as compared to 66-75% in 1946-1960).

In this connection, reduction in the over-all perinatal mortality of twins would be possible only when the twin pregnancy is early diagnosed and the pregnant women directed for hospitalization as early as at 30-32 weeks of pregnancy.

Table 3. *Perinatal Mortality of Twins and Birth Weight*

Birth weight (g)	Twin I		Twin II		Total (%)
	N	%	N	%	
≤ 1000	41 (—)	100.0	42 (—)	100.0	100.0
1001-1500	25 (15)	62.5	26 (13)	66.7	64.6
1501-2000	8 (55)	12.7	9 (71)	11.3	11.9
2001-2500	4 (117)	3.3	12 (101)	10.6	6.8
2501-3000	2 (114)	1.7	5 (115)	4.2	3.0
> 3000	2 (63)	3.1	1 (51)	1.9	2.5
Total	82 (364)	18.4	95 (351)	21.3	19.8

Surviving fetuses given in parentheses

CONCLUSIONS

1. Perinatal mortality of fetuses and newborns in twin pregnancy is mainly accounted for by prematurity.
2. The Consultation Centres “ K ” are expected to play an essential part in reducing the over-all perinatal mortality of twins through early diagnosis of multiple pregnancy and promotion of hospitalization at 30-32 weeks of pregnancy.