Acta Genet Med Gemellol 28:361–362 (1979)
The Mendel Institute/Alan R. Liss, Inc.

Delivery in Twin Pregnancy

G. Héluin, E. Papiernik, J.C. Berardi, R. Frydman

Faculté de Médecine Paris–Sud, Hôpital Antoine Béclère, Clamart, France

Preliminary observations fail to indicate a higher risk to the twin babies as a result of labor induction or Cesarian section, so that a systematic clinical trial will now be possible.

Key words: Labor induction, Cesarian section, Neonatal complications, Second twin

Many of the obstetrical complications of twin pregnancies, when preterm births are discarded, are more frequent during the last three weeks of pregnancy (preeclampsia, stillbirths). Morbidity and mortality of the newborns seem to be at their minimum at 38 weeks for twins. Many twins are breech or transverse lie. The same position for single births would indicate Cesarian section. The problem is to measure the risks and the advantages of the extension of Cesarian section, including the risk to the mother.

The study concerns 158 twin pregnancies that occurred from 1973 to 1978. In all cases the growth of the fetuses was monitored by ultrasound, and during labor a recording of cardiac rhythms for both fetuses was done. Spontaneous labor was observed in 104 cases, vaginal delivery occurred in 87 cases, with 17 Cesarian sections during labor, for an abnormality of fetal cardiac rhythms or stagnation of dilatation.

Elective Cesarian section was performed in 27 cases: for maternal reasons (scarred uterus, toxemia, abnormal pelvis) or fetal reason (small-for-date baby, transverse lie, second-twin breech).

Induction of labor was performed in 27 cases: for premature rupture of the membranes (4 cases), small-for-date fetus (1 case), hydramnios (1 case), or systematic induction at 38 weeks (13 cases). These inductions were followed by a vaginal delivery in 21 cases or by a secondary Cesarian section in six cases (for abnormality or cardiac rhythm of the fetus or abnormal labor).

The choice between elective Cesarian section and elective induction of labor at 38 weeks was based on local conditions, quality of fetal growth (normal growth being an argument for induction), and position of the fetuses. We consider as dangerous a breech position for the first fetus or both fetuses and a transverse lie for one or both fetuses. Breech for the second fetus, however, was not considered as indication for surgery.

0001-5660/79/2804-0361$00.80

RESULTS

Table 1 shows the number of deaths (perinatal), the number of babies with an Apgar score lower than seven at one minute, the number of children with suspicion of neurologic damage in the six days. Fourteen children were supervised by the same neonatal pediatric team.

Induction of labor in twin pregnancies is not harmful to the fetus. In the observed 27 cases, there was no death, and no neonatal neurologic abnormal signs. Apgar score was better in newborns after vaginal delivery than after Cesarian section, but without any later consequences. Elective Cesarian sections gave good pediatric results, but two neonates born to a mother with preeclamptic toxemia had abnormal neurological signs.

Induced labor at 38 weeks or elective Cesarian sections gave better results than spontaneous labor. In particular, the comparison between first and second twins in the 104 cases of spontaneous labor shows that this policy does not protect well enough the second twin whose mortality and morbidity remain high (Table 2).

TABLE 1. Complications in Twins by Type of Labor and Delivery

	Spontaneous labor (n = 104 pairs)		Elective Cesarian section (n = 27 pairs)	Elective induction of labor (n = 27 pairs)	
	Vaginal delivery	Cesarian section		Vaginal delivery	Cesarian section
Births	174	34	54	42	12
Deaths	6	1	0	0	0
Apgar score < 7	40	10	12	8	5
Neurologic damage	10	1	2	0	0

TABLE 2. Complications in First Vs Second Twins With Spontaneous Labor (n = 104 Pairs)

	First twin		Second twin		
	Vertex	Breech	Vertex	Breech	Total
Births	91	13	67	37	208
Deaths	1	1	3	1	6
Apgar score < 7	13	7	9	19	48
Neurologic damage	3	1	1	5	10