



Management of Triplet Pregnancy

J.C. Pons, J.M. Mayenga, G. Plu, R.G. Forman, E. Papiernik

Department of Obstetrics and Gynecology, Antoine Bécclère Hospital, Clamart, France

Abstract. Based on the outcome of 21 triplet pregnancies from Antoine Bécclère Hospital, early diagnosis is the major requirement for improving rates of fetal survival in multiple pregnancies. The outcome was better in mothers with spontaneous ovulation than in those with induced ovulations. Elective cesarean section is proposed.

Key words: Triplet pregnancy, Elective cesarean section

Triplet pregnancy presents serious obstetric problems: early diagnosis, early decrease of maternal activities, preterm labor, increased incidence of delivery complications and neonatal mortality. Moreover, delivery of triplets may present psychologic, social and economic problems. In this report, the course of gestation and labor and the management of triplet pregnancies are analysed.

MATERIALS AND METHODS

A total of 21 triplet pregnancies were followed up in our department at Antoine Bécclère Hospital from 1975 to 1986. The incidence was 1 in 1640 maternities. While the rate of higher multiple pregnancies has been increasing in recent years since the introduction of ovulation inducing agents, this fails to appear in our series: 12 of the 21 sets of triplets were conceived spontaneously compared to 7 conceived after administration of clomiphene citrate and 1 after hMG therapy.

The Specific Management of Triplet Pregnancies

An early diagnosis makes it possible to initiate a pattern of measures preventing preterm

births and prematurity. This diagnosis can be suspected on the clinical data and should be confirmed by the ultrasonographic findings.

An early decrease of maternal activities can be planned when the diagnosis is made early. This includes: rest at home, nutritional counseling and planned visits at home by a midwife.

The patients are seen in the antenatal clinic every two weeks and undergo an ultrasonographic check at the same time. Hospitalization is required only in cases of preterm uterine activity not alleviated by rest or cervical changes. The last cerclage was performed in our unit in 1982. Some drugs such as progestins iron and vitamin D supplements are systematically given. In cases of preterm labour betamimetics are given by intravenous infusion. Corticosteroid therapy is initiated in cases of threatened premature delivery.

The psychological care is very important: 1) the main points of the management of the pregnancy are explained to the patient once the diagnosis is confirmed. 2) The patient can meet multiple pregnancy association members; these associations have a social and economic function. 3) We make it possible for the pregnant patient to meet mothers who already have triplets.

The delivery is mainly by elective cesarean section.

RESULTS

Table 1 shows the number of triplet pregnancies per year. Early diagnosis is essential for our specific management to prevent prematurity. Its prognostic value is demonstrated in twin pregnancy. Early diagnosis is based on ultrasonographic findings.

Ten triplet pregnancies were diagnosed before the 15th week of gestation and 20 before the 28th week. The mean gestational age at diagnosis was 17 weeks, with no difference between spontaneous and induced pregnancies. Our latest positive diagnosis was at 32 weeks gestation in a patient who had never previously been seen by us although the multiple pregnancy was clinically suspected. X-rays were only once used as a diagnostic aid. Ul-

Table 1 - Number of triplet pregnancies per year

Year	Spontaneous pregnancies	Induced pregnancies	Total
1975	1	1	2
1976	0	0	0
1977	0	1	1
1978	2	1	3
1979	1	0	1
1980	0	0	0
1981	1	0	1
1982	1	0	1
1983	0	0	0
1984	1	1	2
1985	1	4	5
1986	4	1	5
Total	12	9	21

trasounds provide the best method of surveillance of fetal growth.

The patients were not systematically hospitalized. The duration of hospitalization ranged between 3 and 77 days, with a mean duration of 35 days.

The mean weight gain was 14.5 kg (Table 2), the same for twin, triplet and quadruplet pregnancies.

Table 2 - Maternal weight gain (kg)

	Singleton	Twin	Triplet	Quadruplet
Minimal	0	0	6	
Maximal	32	30	25	
Mean weight gain	12	14.92	14.5	14.24

Cerclage was stopped in 1982 as it appeared of no value in prolonging the pregnancy.

The most common complication of triplet pregnancy was preterm labor. Eight women had hypertension, while anemia was noted in 4 cases. In one case, there was preterm rupture of membranes.

Table 3 shows the gestational age at delivery of 21 triplet pregnancies in weeks of amenorrhea. No abortion was observed in the second trimester. Only one patient delivered after 37 weeks amenorrhea. The prematurity rate was 95.2%; the mean gestation at delivery was 36 weeks, 35 weeks in induced pregnancy and 32.5 weeks in spontaneous pregnancy. The difference was significant ($P < 0.02$) and this is subject of controversy in the literature. No explanation was found for this discordance.

Table 3 - Gestational age at delivery of 21 triplet pregnancies

Gestation (weeks)	Induced pregnancies	Spontaneous pregnancies	Total
24 - 28	0	0	0
29 - 32	0	7	7
33 - 36	9	4	13
37	0	1	1

There are different opinions about the best way of delivery for triplets. Most authors stress the risk of fetal distress of the 2nd and 3rd triplet mainly in breech presentations and when there is a long delivery delay of 3rd triplet. We always perform elective cesarean section. Our results are similar to those previously reported with respect to the gestational age at delivery and the fetal birthweight. On the other hand, elective cesarean section seems to improve the Apgar score (Table 4). There is no further difference linked either

Table 4 - Elective cesarean section seems to improve the Apgar score

Apgar score	T1	T2	T3
1'	6.2	6.2	6.7
5'	8.5	8.8	8.0

to birth order or to the presentation. The mortality rate is also improved: 5 children out of 63 died (7.8%); 3 deaths were related to complications of prematurity (1 intraventricular hemorrhage, and 2 respiratory distress syndromes); 2 intrauterine deaths (3.1%) occurred following feto-fetal transfusion in a dizygotic triplet pregnancy. The 3rd child was born at 29 weeks after premature membrane rupture.

The birthweights of the triplets ranged from 900 g to 2420 g (Figure). The mean birthweight was 1710 g. No significant birthweight differences were found according to birth rank.

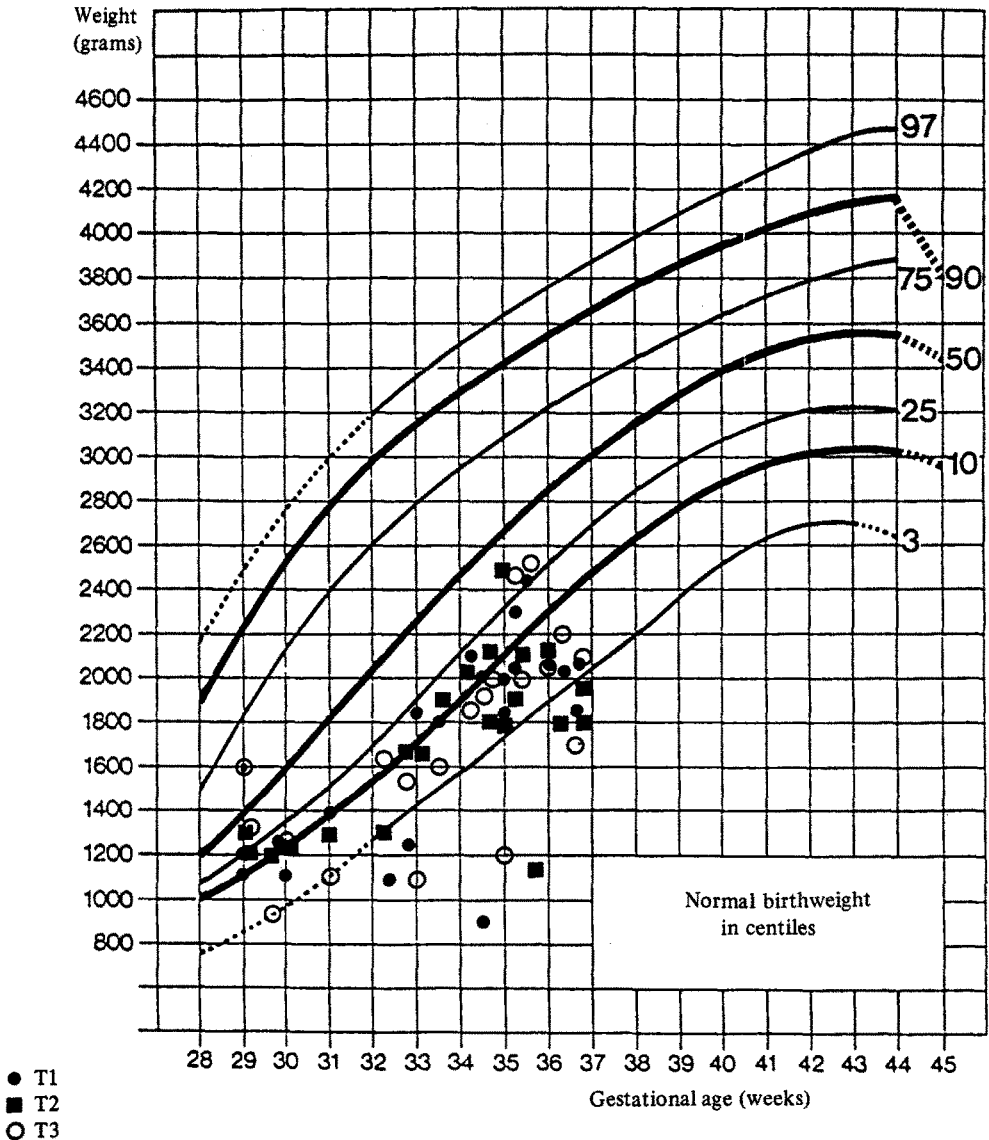


Figure: Birthweight range related to gestational age.

The figure shows the neonatal weight range as related to gestational age. For this, we used Leroy and Lefort's curve [1] established from a representative sample of French population. The third percentile of this curve corresponds to the 10th percentile of Lubchenko's curve [1]. Forty per cent (25 children) of the triplets weighed more than the 10th percentile. Sixty per cent (38 children) were hypotrophic, as they weighed less than the 10th percentile. Finally 26 children presented respiratory complications related to prematurity; 7 had respiratory distress syndrome, and 11 had transient respiratory distress.

There is a great controversy about the use of corticosteroids. Several authors feel it is contraindicated in multiple pregnancies and/or in cases of Beta-mimetic treatment. In severe threatened preterm delivery, we use Beta-methasone therapy 6 mg IM every 12 hours for 48 hours. The procedure is repeated weekly from 28 to 34 weeks gestation. Ten pregnant women out of 21 received corticosteroids (Table 5). None of the triplets suffered from respiratory distress syndrome. Of the 33 children delivered of nontreated mothers at an identical gestational age, 7 developed respiratory distress syndrome. No maternal complication could be observed after the association of corticosteroids and Beta-mimetic drugs.

Table 5 - Cortisosteroid therapy

	R. D. S.	T. R. D.	Gestation (weeks)
Treated patients N = 10	0	8/30 (26%)	33.4
Not treated N = 11	7/33 (21%)	11/33 (33%)	33.4

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Correspondence: Dr. J. C. Pons, Department of Gynecology and Obstetrics, Antoine Bécclère Hospital, F-92141 Clamart, France.