DURATION AND COMPLICATIONS OF MULTIPLE PREGNANCIES

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Multiple pregnancies reach full term only in a remarkably lower percentage with respect to single pregnancies. Even in the case of multiparae, delivery occurs some three weeks before term. Complications may concern either pregnancy and puerperium or delivery. The former include (1) *abortions, especially frequent in the case of monoplacental and monochorial pregnancies*; (2) *rarer events, such as hydramnios, placenta praevia, association of an ectopic pregnancy with an intrauterine pregnancy, molar degeneration of one egg with normal development of the other*; (3) *gestoses of the first and second trimester, more frequent than in single pregnancy*; *and* (4) *higher incidence, during puerperium, of hemorrhage, phlebitis, and uterine subinvolution. With respect to delivery, normal delivery only occurs in approximately 70% of twin pregnancies, the period of dilatation being generally longer than normal. Better assistance and techniques during labor and especially in the interval between delivery of first and second twin have remarkably reduced the higher mortality rate, especially for the second twin.*

Multiple pregnancies come to an end in a remarkably lower percentage than single pregnancies. Most authors agree that parity has an important influence on the causes of this phenomenon. It has actually been reported that primiparity is one of the factors which favor premature births. However, it is difficult, even in pluriparae, for the delivery to be on time. At a high rate, i.e., in more than half of cases, the delivery comes about 20 days before term. Milewicz (1972) calculated on 29,656 deliveries the duration of 389 multiple pregnancies and reported that their average duration was about 258 days, i.e., 23 days less than a normal pregnancy. Zoltan (1972) noticed that premature birth is 3 to 4 times higher than in normal pregnancies and that about 12% of all premature babies were born from multiple pregnancies.

According to Tesauro and La Torretta (1965), the incidence of premature births for the first twin comes to 62.54%, whereas for the second, it comes to 69.29%. According to others, like Aaron and Halperin (1955), Graves et al. (1962), Guttmacher and Kohl (1958), Kurtz et al. (1955) Potter (1963), premature births waver between 40 and 60%. Leroy (1972) points out that the delivery occurs before the eighth month in 42% of twin pregnancies.

Though obstetricians know well how difficult it is to establish an exact date for the biological duration of the pregnancy, the twins' weight at birth is certainly significant for a clinical diagnosis.

Numerous authors demonstrated that twins born from primiparae are less developed. We indicated primiparity among the causes of those premature births. This fact could therefore lead us to think more of a matter of physical incapacity of the uterine development than of hormonal insufficiency. If the pregnant woman's rest in bed from the end of the seventh month actually helps the regression of the premature birth-rate, this means that there are, as for single pregnancies, some reasons related to the maternal organism rather than merely the endocrine system. Zoltan (1972) therefore believes that twin pregnancies ought to be considered high-risk pregnancies, and Robaczynski and Robaczynska (1972) believe it necessary to hospitalize during the 30th week all pregnant women in which multiple birth has been diagnosed.

Horsky and Fialova (1972) succeeded in bringing down, in Prague, the rate of perinatal mortality

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from 15% to 5%. According to Leetz (1972), with this preventive therapy, the average of premature births went down to 16.6% in the obstetrical clinic of the University of Debrecen, whereas in the German Democratic Republic, the average was 56.2% in 1969.

The complications of multiple pregnancies can be subdivided into two groups, i.e.: (1) complications which arise in the course of the pregnancy and puerperium and (2) complications which arise during the delivery.
Six complications may be listed in the first group.

(1) Abortion, which can assume particular forms according to placentation and choriality. According to Vermelin and Ribon (1949), this can be found in 9.10% of the cases. This event is frequent mostly in monoplacental and monochorial pregnancies. In a dichorial dizygotic twin pregnancy, the anatomic separation and the independent evolution of the two eggs can sometimes give particular forms and characteristics to abortion, by which exceptionally after the expulsion of one of the embryos with or without placenta, the normal evolution of the other foetus is possible.
(2) The association of an ectopic pregnancy with an intrauterine one is quite a rare event but it cannot nevertheless be disregarded. So it is for the molar degeneration of an egg with normal evolution of the cotwin, which, though it is a very rare complication, has been described by several authors, such as Bertoli (1957), Hobday and Bland (1964).
(3) Hydramnios can be quite frequently observed and certainly in a higher percentage than in single pregnancies, but mostly in monochorial pregnancies.
(4) According to many authors, the placenta praevia has a variable frequency. Statistics indicate an important margin between the extremes and perhaps the analysis has not been sufficient to produce any sure conlusion. We actually go from Eastman's (1956) 0.5% to Tesauro's and La Torretta's 6.5% (1965).
(5) The gestoses in the first as in the third trimester are more frequent than in single pregnancies. According to De Voe and Pratt (1948) they are more frequent in pluriparae who show a frequency of 0.8%. Finotti (1952) reports the following rates: 1.7 as to extra pregnancies, 1.83% as to twin pregnancies and 0.15% as to all pregnancies. According to Leroy (1972), the incidence rate reaches 18.4%, for Tesauro and La Torretta (1965) 29.17% of the cases. While the status preeclampticus and eclampsia recently almost disappeared from the case reports, obviously thanks to a more efficient therapy, on the other hand, more or less hypertensive nephrogenic toxicoses in general have increased in frequency. Zoltan's data from the Budapest Obstetrical Clinic (from 38% before 1958 to 10% after this date) are very significant of this fact.
(6) Premature birth, as already seen, is another complication.

Of course, the complications here listed are only the most specific ones, but that does not prevent the complications found in single pregnancies to interfere in multiple ones as well.
With regard to the complications peculiar to delivery, it should be emphasized that in general most of twin or multiple deliveries require a longer dilatation period than usual, but that in about 70% of the cases, the delivery occurs spontaneously in a eutocic way.
The improved techniques of assistance during the delivery, and above all between the expulsion of the first and second foetus, have produced a notable reduction in the high mortality rate, particularly in the case of the first new-born. According to Sternadel and Lysikiewicz (1972), in the clinic of Warsaw, the ideal interval between the expulsion of the first and second newborn is 30 minutes, as for Tesauro and La Torretta in Naples. According to Leroy (1972), on the contrary, besides the presence of the anaesthetist in the delivery theater "it is compulsory that the second twin should be born within less than 10 to 15 minutes after the first one".
The complications concerning the delivery apply not only to uterine dynamics but also to the presentation of the foetuses. The dystocia of related twins is quite rare but it still is an event for which the obstetrician is prepared thanks to the modern means of prenatal diagnosis.

As for the puerperal period, let us pinpoint the larger incidence of postpartum haemorrhages, of consequent anaemia, of phlebitis and at last of uterine subinvolutions.
In conclusion, the specialist will have to keep to a particular care during the pregnancy and during the labor and the delivery, taking into consideration the particular risks impending on the pregnant woman and on the foetuses.

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