

THE PROGNOSIS OF TWINS AND PREMATUREITY

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Premature delivery is 3-4 times higher in multiple pregnancy. About 12% of all premature infants result from twin pregnancies. Multiple pregnancy is therefore considered as a high-risk pregnancy, involving intensive care of the pregnant woman. The occurrence of toxicosis in twin pregnancies has in this way been reduced to almost 10%. The maturity or immaturity of twins seems to be qualified according to the weight of each single twin, irrespective of the twin partner. Small-for-date babies may be frequently found in twin pregnancies.

The prognosis of multiple pregnancy and newborn care is a closely associated problem that I should like to outline briefly.

In Hungary, the importance of multiple pregnancies lies in the fact that prematurity is 3-4 times more frequent than in single pregnancies. The growing frequency of premature deliveries has been a serious problem in Hungary in the past decades, as it has a detrimental effect on perinatal and infant mortality. Although this upward tendency has been recently abated, on a national basis it still amounts to 10%. Investigating the causes of prematurity is a complex task, since it involves a multicausal clinical picture.

As about 12% of all premature deliveries are due to twin pregnancies, this analysis seems to be one way of reducing the frequency of premature births.

In Hungary, when we speak of endangered or risk pregnancies, we do not only mean a scientific concept, but the tasks of organized prenatal care in the frame of which a woman, whose pregnancy can be regarded as endangered, should be given increased medical and nursing care, including hospitalization, i.e., clinical investigations and, if necessary, treatment.

On the basis of the above considerations, twin pregnancies fall under the category of high-risk pregnancies. According to this principle, each expectant mother with multiple pregnancy, who reports at our clinic, is admitted to the department of pregnancy-pathology for observation and, if necessary, treatment. This method has already shown significant results, as, for instance, in the case of toxicosis, one of the most frequently occurring complications.

While between 1947 and 1958 in our clinic we have diagnosed 38% of the cases of toxicosis among twin pregnancies, this rate has hardly exceeded 10% since 1958. However, as against the 10% frequency of cases observed or treated in the clinic, the occurrence of toxicosis among twin deliveries amounted to 24% in those not under the care of our service but whose deliveries were conducted by us.

It is obvious that the diminished rate of complications also affects the prognosis of twins,

mainly in the case of premature deliveries. It stands to reason that twin pregnancy itself may cause premature births only if coupled with concomitant complications.

The diminishing frequency of complications must necessarily entail that of premature deliveries. Our observation in connection with toxemia seems to support this statement. Only 23% of expectant mothers suffering from toxemia, who were under our control during their pregnancies, had premature deliveries, as against 39% of those who only came to have their deliveries conducted.

These few data prove both the necessity and the effectiveness of the increased prenatal care of twin pregnancies.

Concerning the premature deliveries of twin pregnancies I should like to propose a few ideas.

When comparing mature or premature newborn twins with corresponding singletons, we refer to the classical international conventions according to which twins whose combined weight exceeds 4500 g can be regarded as mature, irrespective of the breakdown of weight by either twin. Thus, it is possible to regard a 2000 g twin as mature if its twin partner weighs 2500 g, and as premature if its twin partner was born under the weight of 2500 g. This means that the life expectancy of a 2000 g newborn twin is identical to that of a mature newborn of a single pregnancy, if its twin partner weighs more than 2500 g.

We are wondering whether these old-time statements still hold true today.

Before outlining the results of our investigations, I should add that our data cover only a short period of the work of our institute. Thus, statistically, they can only be regarded as a small model. Nevertheless, they raise ideas and the possible need for further investigation on a larger scale.

We studied those 1800-2000 g newborn twins who could be regarded as mature owing to the weight of their cotwins, and compared their perinatal mortality and survival up to their first year with the data of those who, on the basis of their cotwin's weight, had to be classified as premature. We didn't find any significant differences either in their perinatal mortality or in their prospects of survival.

We further studied twins of the same two categories as to their physical development. Their age-corrected weights were compared to international standard values of growth. This series of investigations also convinced us that there was no difference between the two twin groups. We further compared the perinatal mortality of twins born of 1800-2000 g with that of nontwin premature newborns of the same weight group. This comparison also failed to show any divergence.

These results indicate that the life expectancy of 2000 g twin newborns is not better than that of singletons, though they may be considered mature owing to their cotwin's weight. Should further studies, based on longer period examination of larger samples, support our present results, we have to stop judging the maturity of twins on their combined weight. The maturity of twins should be judged on the weight of each twin, irrespective of its twin partner.

A final point is that, since for single pregnancies we already differentiate between premature newborns and newborns at term but "small for date", I believe the same method should be applied to multiple pregnancies. Even if we consider the 4500 g combined weight as the maturity limit of twins, our data show that there is a considerable rate of

small-for-date newborns among them as well. Out of 182 twin pairs born between the 38th and 41st week, 32 didn't reach the 4500 g combined weight. In view of the prognosis of twin newborns, this question seems to be worth investigating too.

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