

OBSTETRICAL PROBLEMS OF CONJOINED TWINS

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The analysis concerns 16 cases of births of conjoined twins reported in the Polish literature. Cesarean section was applied in 2 cases, while 13 cases were spontaneously delivered without destructive operations. Embryotomy was necessary in 1 case. Liveborn fetuses were 7, while 9 were stillborn; 6 were male and 10 female. The heaviest body weight amounted to 5810 g, and the lowest to 1200 g. When the diagnosis of live conjoined twins is possible before the second stage of labor, Cesarean section should be performed. Treatment during vaginal delivery depends on the ensuing conditions.

An increasing number of publications reporting cases of conjoined twins seems to indicate that this malformation is not as rare as suggested by Morison (1 : 60,000-100,000 births). The growing number of multiple pregnancies recently reported may be relevant in this respect.

A conjoined twin pregnancy is usually uneventful. Since a diagnosis of conjunction of fetuses cannot be made before the onset of labor, one can only suspect or postulate a twin pregnancy. The delivery, in such cases, occurs 4-5 weeks before the expected term.

The course of conjoined-twin delivery depends on numerous factors concerning both the parturient and the fetuses. Martius (1961) believes that most fetus malformations require no special obstetrical intervention. Fetuses are usually delivered prematurely, since they are small and can change their shape easily, which facilitates their passage through the birth canal, even if labor is disturbed. An analysis of conjoined twins shows, however, that they are relatively large formations with the body-weight attaining 3000-4000 g on the average. In spite of this, delivery is often easier than one would expect; Kelhoffer (1946) reports a spontaneous vaginal delivery of conjoined twins with birth weight of 5810 g where no destructive operation was performed.

Management of cases of conjoined twin deliveries depends on whether the correct diagnosis has been made before the second stage of labor, and whether the fetuses are alive or not; the size of fetuses and type of conjunction are also relevant. Prerequisites for spontaneous delivery are a sufficiently wide pelvis of the pregnant woman and normal labor activities.

In diagnosing conjoined twins the comparison of two roentgenograms may be helpful. The first X-ray picture should be taken before the onset of labor and the second at an advanced stage of labor. If the position of one fetus in relation to the other remains unchanged there is an actual possibility that the fetuses are conjoined (Milewski and Zarembo 1965). There are several cases reported in the literature in which the diagnosis was made by means of X-ray examinations. In 1952, Alex based his diagnosis of conjoined

twins on this method. In Polish literature, Zapadowski in 1962 founded his suspicion of a double malformation on the comparison of two roentgenograms taken respectively in the last month of pregnancy and at the onset of labor. On the basis of these findings, and knowing that the fetuses were alive, he decided to perform a Cesarean section. If the occurrence of conjoined twins is ascertained before the second stage of labor, treatment should depend on whether the fetuses are alive or not. If fetuses are alive the Cesarean section seems to be an elective method because spontaneous delivery through the birth canal is very hazardous for their life.

Irrespective of the conjoined twins being dead or alive, if the delivery is so advanced that Cesarean section cannot be performed, vaginal delivery is the only solution. In such a case a decision is to be made whether to perform a destructive operation or not. Kelhoffer (1946) is of the opinion that the obstetrician's task is to help delivering conjoined twins as a whole through the birth canal without any destructive operations. Operations performed under such circumstances are extremely difficult as they must be performed in the uterine cavity without direct sight control. Hence they may result in severe damages to parturient women. It is obvious, however, that sometimes such operations are inevitable. Thus, treatment during the delivery through the normal birth canal is dependent on conditions arisen which, in turn, are influenced by the type of conjunction of twins. Asymmetrical double malformations usually do not involve obstetrical difficulties at delivery. The defect of this type is not recognizable before delivery. Occasionally other developmental defects are found to disturb fetal circulation and require obstetrical operation (Ruskiewicz 1969).

SYMMETRICAL DOUBLE MALFORMATIONS

1. Conjoined in the upper part of cranium (*craniopagi*) or in the lower dorsal part of trunk (*pygopagi*). Here one fetus is a prolongation of the other. Delivery of this kind of conjoined twins usually follows a normal course through the birth canal without special complications.
2. *Thoracopagi*, the type of conjunction predominant in males. The worst prognosis for delivery occurs in cephalic presentation, the best in breech presentation. The complications involved in this type of conjunction occur when one fetus is totally or partially delivered and the other has a transversal lie in relation to the pelvis inlet which prevents spontaneous delivery. The pedicle joining both fetuses is susceptible and distensible and so it is possible to avoid embryotomy in most cases.
3. Malformations in which the doubling concerns caudal or cephalic regions. Delivery is usually spontaneous. Certain complications may occur when a *diprosopus* (two-headed formation) is involved. The treatment under these circumstances is conditioned by the kind of complications arising.

This analysis concerns 16 cases of conjoined twins reported in the Polish literature (a total of 25 cases have been recorded in Poland since 1878) and involves:

- One case of triplets where conjoined female twins were delivered alive first and then a male fetus, normally developed, was born (Sowinski 1962).
- Two cases of delivery with Cesarean section. One of them concerned an asymmetrical

malformation not diagnosed; Cesarean section was performed because of varying fetal heartbeats. The other case concerned conjoined twins diagnosed at the onset of labor activities; Cesarean section was performed because the fetuses were alive (Zapedowski 1962, Ruskiewicz et al. 1968).

— One case where embryotomy was performed; the conjoined twins were dead and one of them was in breech presentation whereas the other's lie was transversal (Ruskiewicz 1969).

— One case involving an *ischiopagus* with cephalic presentation which was delivered by forceps (Borsukowski and Hanski 1950).

On the whole, 13 cases of spontaneous deliveries without destructive operations were observed, over a total of 16, 7 liveborn and 9 stillborn. In 10 cases conjoined twins were female and in 6 cases male. The highest birth weight observed was 5810 g and the lowest 1200 g.