INTERLOCKING IN TWIN PREGNANCY

(A Case Report)

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Interlocking of twins due to entanglement of the inferior surface of one of the twins chin with that of its co-twin above or below the pelvic inlet is a very rare condition. It mostly occurs with the first as breech and the second as vertex.

Incidence

It must be said that as this complication is extremely rare exact incidence is difficult to record. According to Braun, it occurred only once in 90,000 deliveries in two Vienna Clinic. Lawrence (1949) collected reports of 28 cases of locked twin between 1907 and 1946 and reported three more cases. Nissen (1958) collected 69 cases, including one of his between the years 1882 and 1957. Out of these cases, only 9 cases were reported as Chin to Chin locking. Kreiss and Miller (1958) reported only one case of chin to chin locking. Lister (1960) gave the incidence of locked twin as 1 in 2461 deliveries and 1 in 140 twin deliveries. According to Cohen *et al*, (1965) the incidence is one in 71,644 deliveries or 1 in 817 twin gestations. In Eden Hospital during the period January 1970 to June 1973 there were 33,840 deliveries of which 328 were twins and 1 locked twin. So, the incidence of locked twins is one in 33,840 deliveries or 1 in 328 twin pregnancies.

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Received for publication on 15-4-1974.

CASE REPORT

Mrs. C. B., an unbooked primigravida, aged 28 years, was admitted on 9th August 1973 at 3-30 A.M. for Eden Emergency as a case of twin pregnancy with ruptured membranes associated with loss of foetal movements since last evening. She was transferred from nearby Primary Health Centre as she was a primigravida with twin pregnancy. Her pulse rate was 78 per minute and blood pressure was 140/90 mm of mercury. She was anaemic and had slight oedema on her legs. She had a x-Ray of the abdomen during her antenatal check up in the Primary Health Centre in which the leading foetus was presenting as breech and the other was by vertex. They were not engaged. Foetal heart sounds could not be properly detected. Abdominal examination showed full term pregnancy.

Vaginal examination revealed a long cervix which admitted one finger. The presenting part was at the level of the brim and was thought to be breech. At 5-30 P.M., the cervix was fully dilated and a flexed breech was detected in the midcavity with its back on the left side. Two hours later, the breech was found just at the level of vulval outlet.

An episiotomy was performed following infiltration of the perineum with 1% lignocaine. The baby was then delivered spontaneously to the level of the inferior angle of scapulae. The pulsations of the cord were absent in the meantime, and heart beats were also absent. The arms were easily brought down, but further delivery was impossible. Further vaginal examination revealed the deflexed head of the second twin in the right occipito-posterior position, and the overstretched neck of the 1st twin was felt on the left side of the pelvic cavity. No further attempt for delivery of the babies was made and the patient was taken to the operation theatre. Under general anaesthesia it was detected that the overstretched neck of the partly delivered breech baby was over the chin of the extended head of the second twin, which was low in the pelvis, whereas the head of the first twin was still above the brim.

An effort was made to disengage or displace the second head of the twin, but as it was jammed into the pelvis this was not possible. Craniotomy was performed with the help of Simpson's perforator on the head of the second foetus, as the foetal heart sounds were absent.

As the brain matter was expressed out, it became easy to push up the collapsed head into the uterine cavity, and unlocking was achieved with less difficulty. The first twin was then extracted quite easily, using the Mauriceau—Smellie—Vit technique for the aftercoming head of breech.

The collapsed head of the second twin was then pressed from above and grasped firmly with multiple toothed forceps and 3 to 4 pairs of Allis forceps and extracted with gentle traction taking all precautions not to injure the vaginal walls.

The placenta was expelled spontaneously. Uterus was digitally explored and cervix was inspected to exclude trauma and the episiotomy wound was sutured. Both babies were female, still-born and premature—first weighing 2,300 grams and the second 2,000 grams.

The patient had an uneventful puerperium, and was discharged in good condition on 15-8-73.

Discussion

Wright (1942) described three cases of chin to chin locking, of which in two cases the presenting part of the leading foetus was complete breech. The same incidence was also observed by other authors, Nicolson (1942); Bradlow (1944); Greig (1946); Lawrence (1949); Williamson (1953) and Parikh (1967).

The key to successful treatment is early recognition. This will help in proper management as well as to prevent foetal mortality. Unfortunately, the diagnosis of locked twin does not come to mind until or unless one has already faced it previously. Generally, suspicion should arise where, in spite of effective uterine contraction and adequate passage, arrest of labour occurs. So, in most of the cases diagnosis would be possible during the time of delivery.

The basic principle in breech and vertex interlocking is "disengagement of the vertex under deep anaesthesia"; otherwise, continued traction on breech will lead to impracticable entanglement of the twin. So decapitation of the first twin is the next choice, where the second baby will be delivered first and the decapitated head will be extracted later on. Craniotomy on the second foetus in chin to chin interlocking could not be performed until and unless one is sure of the death of that foetus. In this case, as the second foetus was dead, craniotomy was decided upon and the collapsed head was easily pushed up, which helped the disimpaction or unlocking of the twin. Each case will be judged according to the position and condition of babies.

Decapitation of the foetus in this case was not done because this would have led to more intrauterine manipulations which was unnecessary as the second foetus was already diagnosed as dead. Moreover, the neck of the first leading foetus was so stretched that decapitation

would have been difficult or might have caused injury to the mother.

Parikh (1967) in his case performed craniotomy on the second foetus at first, the leading foetus as the perforated head and then decapitation for the leading foetus as the perforated head could not be easily delivered by bull dog forceps.

Caesarean section has got limited place in chin to chin interlocking cases. Williamson (1953) was forced to do caesarean section in one case of this variety, as decapitation failed from below. It has some place in vertex to vertex or vertex to transverse variety of locked twin.

Kimball and Rand (1950) described a case of chin to chin variety, where both the babies were living. After the delivery of the first baby up to the neck, traction and flexion were applied on the vertex of the second baby with Piper forceps and after extraction of the head of second twin both the babies were delivered spontaneously.

Acknowledgment

The author is thankful to the Principal-Superintendent, Dr. B. Chakraborty, Medical College, Calcutta, for permission to use the Hospital records.

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