LOCKED TWINS

(Case Reports)

by

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Being a rare condition the occurrence of locked twins is very interesting. According to Braun, as stated by Munro Kerr, it only occurred once in 90,000 deliveries in the two Vienna clinics. According to Horder, it is not so uncommon. He derived the latter fact from his observation in the last few years. Nissen had reviewed about 70 collected cases of locked twins. According to him, 45 cases of locked twins, both babies having vertical lie, have been described till 1957. Lawrence (Leeds) described 3 cases of locked twins and tabulated 28 previously recorded cases. The types of locking in 31 cases were as follows:—

Vertex and vertex	..	10
Breech and vertex	..	16
Vertex and transverse	..	4
Breech and breech	..	1

Recently we came across 2 cases of locked twins which are reported in this paper.

Case 1

A multipara, H.A., 30 years, was admitted with a history of 9 months' amenorrhoea and labour pains. She had 4 full-term normal deliveries, all alive. The patient was fairly well built and nourished. There was mild degree of anaemia and slight oedema was present over the legs. Pulse was 100/min. and B.P. was 150/90. Systemic examination detected nothing abnormal. The abdomen was found bigger than usual. Fundal height was 16" while abdominal girth was 44". Multiple foetal parts were felt and 2 heads at the lower pole of uterus. Two separate foetal heart sounds were heard. The cervix was 2 cms dilated. The membranes were bulging. The presentation could not be properly made out. Pelvis was normal.

A diagnosis of twin pregnancy was made tentatively and the patient was observed vigilantly. X-ray of abdomen for confirmation of presentation and position could not be taken due to certain technical difficulties. It was not considered essential as the diagnosis of twins was almost certain and both the babies were found to be having vertex presentation.

After five hours of the first examination the membranes ruptured spontaneously. Cervix was 6-7 cms dilated and a head was found to be presenting. The patient was observed for two more hours but there was no progress of labour in spite of the patient having good uterine contractions. A vaginal examination was repeated. Head had undergone moulding and a caput had formed. In the postero-lateral aspect a distinct groove was felt which was found to be the groove between the two heads.

Management: Under general anaesthesia, after an unsuccessful attempt to push the head of the second twin up, the abdo-

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men was opened, as foetal heart sounds of both the babies were present. There was no difficulty in delivering the twins, but the first baby, being severely asphyxiated could not be revived. It expired within few minutes of birth. The second baby did quite well. The babies weighed 4 and 4.5 lbs respectively. Tubal sterilisation was also done at the same time. The patient was discharged on the tenth day of the operation.

Case 2

A primipara, I.P., aged 20 years, was admitted as an emergency patient with a history of rupture of membranes 3 hours previously and impacted after—coming head. On examination of the abdomen the uterus was found to be slightly above the umbilicus. The head was felt and no other parts of foetus could be detected. No foetal heart sounds were recordable. On vaginal examination the baby was found to have delivered up to the neck which was greatly stretched as a result of previous attempts at delivery of the head by pulling on the trunk of the baby, A second head with vertex presentation was found in the sacral hollow. The other parts of second foetus were difficult to palpate per abdomen as it was a small one lying behind the head of the first baby.

Management: As it was futile to try to push the head of the second baby up and as both the babies were dead, the neck of the first baby was severed with scissors. After severance, the head of the first baby could be pushed up and the second baby was delivered by forceps. The head of the first baby was delivered by hooking into the foramen magnum by volsellum forceps. The babies weighed 3 and 3.5 lbs. respectively. The patient made an uneventful recovery and was discharged on the 5th day of the delivery.

Discussion

Munro Kerr has described the following varieties of locked twins viz. i. Locking of two fore-coming heads. ii. Locking of the after-coming head of the first child and fore-coming head of the second. iii. Locking of after-coming head of first and shoulder with prolapsed arm of the second one. iv. Locking of two babies presenting by breech with four legs prolapsing into the vagina.

Of these, the first is the least serious variety.

In the majority of cases, this complication is diagnosed very late in labour for two reasons. First, because of its rare occurrence, it is not thought of earlier, and secondly, there are no diagnostic points by which the complication can be anticipated early in labour. But there are certain conditions which when associated with twin pregnancy, suggest this complication, especially if the labour does not progress satisfactorily in spite of good uterine contractions. These are as follows: (i) oligohydramnios, (ii) primigravidity, (iii) very premature babies, (iv) very large pelvis. According to Horder, oligohydramnios is an important predisposing factor for locking. Also, it is more common in primigravidae. The space available to the foetuses is decreased in oligohydramnios while in primigravida, due to tight abdominal and uterine wall, the space is restricted. Locking is also more likely when babies are premature and/or when pelvis is large. Here it is due to more available space in the pelvis, which allows parts of both the foetuses to enter the pelvis simultaneously. In our second case who was a primigravida the babies were very small. So in this case primigravidity, small size of the babies and possibly oligohydramnios were the contributory factors. In the first multiparous case it may be that the large pelvis may have contributed. The babies

here were not very small and also there was no oligohydramnios.

Management

In the first case both foetuses were presenting by vertex. If the babies are quite small it is possible in the majority of cases to push the head of the second baby up. If this becomes impossible even under general anaesthesia, one has to resort to caesarean section if the babies are living. As Munro Kerr advises, forceps should never be applied to the head of the first twin lest severe injury should result to the mother. If the baby is moribund and is unlikely to survive, either craniotomy or decapitation of the first head becomes necessary.

In the second case, locking was of the second variety i.e. the after-coming head of the first baby was held up by chin of the second baby presenting by vertex. If the babies are small, it is advisable to push the head of the second child up and the head of the first baby is delivered. If this manoeuvre proves unsuccessful, and the head of the second baby has descended well into the pelvis, one should decapitate the first baby and the second baby is delivered either by forceps or craniotomy. The head of the first baby is removed afterwards.

In the third variety of locking i.e. when an after-coming head of the first baby and shoulder with the prolapsed arm of the second baby become impacted, caesarean section is the best course to avoid rupture of the uterus. But if this is impossible, decapitation of the first baby and version with breech extraction of the other baby may be done.

In the fourth and very rare variety with all the four legs prolapsed in the vagina, one should try to push one foetus out of the way. Should this became impossible, either caesarean section or embryotomy of one of the foetuses may have to be carried out to effect the delivery.

If this complication is not diagnosed till late in labour the babies usually die. Maternal distress also develops and the uterus may rupture. The danger with vaginal manipulation also risks rupture of uterus due to already overstretched uterus which may be stretched further by vaginal manipulations. This danger is greatly obviated by caesarean section early in the course of this complication. Also, the latter procedure gives the maximum chance for the survival of the babies.

Summary

Two cases of inter-locking of twins are presented.

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