

COILING OF THE UMBILICAL CORD ROUND THE FOETAL LIMB LEADING TO ANTEPARTUM FOETAL DISTRESS

by

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We come across, in routine obstetric practice, a good number of cases where coiling of the umbilical cord round the foetal neck is observed. There are many reports in the literature which focus discussion over the significance of these nuchal coils in increasing the risks of foetal distress, stillbirths and perinatal deaths. The potential dangers of the coiling round the body are presumed to be the same as in other complications of cord but there are few reports in literature to justify these dangers. Perhaps, either it is due to low incidence or due to unknown significance of this complication.

Present case illustrates as to how we could avert the hazard of coiling round the limb by early intervention and proper management of the case.

CASE REPORT

S., 2nd gravida, aged 26 years, was expected to deliver on 27-4-70, according to her L.M.P. on 20-7-'69. She never attended antenatal clinic during this pregnancy. She was admitted in the hospital with mild labour pains at 5 a.m. on 10-3-1970. She was an averagely built woman having B.P. 120/80 mm Hg and pulse rate 84/min. with no evidence of oedema and anaemia. Her urine and blood reports were normal. The height of the uterus was 34 weeks with an average size baby, presenting as vertex, LOA, floating. F.H.S. were regular, 144/min. There were very mild infrequent uterine contractions. The cervix was not

taken up, tubular, membranes intact, pelvis adequate, clinically no cephalo pelvic disproportion was detected. The patient was prescribed sedatives and observed regularly. On each subsequent examination the FHS was increasing and variable but had come down to 150/min. at night. There was no progress in the descent of the foetal head till the next morning and there were no signs of established labour. Foetal tachycardia and excessive foetal movements were observed. This tachycardia was persisting and associated with it there was irregularity of foetal heart tone. It was decided to deliver the baby by lower segment caesarean section after 33 hours of admission to hospital. A male live baby weighing 4 lbs. 14 oz. was delivered. The liquor was clear, the membranes were intact and lower uterine segment distended. The umbilical cord was 22 inches long, coiling twice round the right ankle of the foetus. There was no abnormality of cord and placenta on clinical and histopathological examination. All the laboratory investigations were normal.

Comments

There is a difference of opinion as to whether the diagnosis of foetal distress is justified on the basis of these criteria such as foetal tachycardia, irregularity of foetal heart beats and abnormally vigorous foetal movements (Eastman). But a majority of obstetricians concede that foetal heart beats persistently going above 160 per minutes and persisting irregularities of rhythm are to be considered as signs of foetal distress. Assuming that there was foetal distress in the present case we are justified in suspecting the cord complication as the genuine

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cause for it. There are four factors responsible for foetal distress, such as spasm of the umbilical vessels, compression of the cord, strangulation of foetus or the premature separation of part of the placenta owing to relatively short cord pulling on it during descent of the foetus. Spasm of the vessels, to the extent to produce foetal distress, in the presence of intact membranes does not occur. One of the rare causes of accidental haemorrhage is short cord which is more common in cases with cord loops round the foetal body. There was no evidence of premature separation of placenta in the present case. It is perhaps the mechanical factor such as the compression of the cord which interfered with the placental circulation and produced foetal asphyxia.

Recently Sinha and Mukherjee (1969) reported two cases of intra-uterine foetal death due to coils of the umbilical cord round the foetal limbs. Javert (1957) discussed the risks of the coils round the foetal body in leading to its intrauterine death. Dippel (1964) Shui & Eastman (1957) published their series of 1000 consecutive cases and they do not support the view that cord round the neck or body is a cause of foetal asphyxia and foetal death.

The incidence of nuchal coils is high. The incidence of cord round body is reportedly 0.5 per cent, but Spellacy *et al* (1966) reported the incidence of this complication in about 2 per cent of their 17,190 cases. It is assumed that these

cord complications can produce signs of foetal distress but the results of these complications are transient and the radical management is unjustifiable in such cases. We have excluded all other possible causes of foetal asphyxia by clinical laboratory investigations and in our opinion the interference by caesarean section was essential to save the baby once the impending danger to it had been detected in time.

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