

Umbilical Cord Haematoma : A rare cause of fetal death

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Abstract

We report an unusual case of spontaneous umbilical cord haematoma resulting in intrauterine fetal death

Key Words

Umbilical cord, Haematoma

Introduction

Several pathological abnormalities of the umbilical cord affect the fetal well being adversely. These may be excessively long or short cords, velamentous insertion of the cord, cord enlargement or knotting, prolonged meconium exposure or stricture at the fetal end of the cord. (1) Less common abnormalities include obstruction of circulation by amniotic bands and varices. They may result in haematoma and thrombosis of the cord vessels and the placental surface, leading to fetal death and/or thrombocytopenia. (1) In other cases fetal hypoxia and central nervous system damage are possible outcomes.

Umbilical cord haematoma is a rare cause of intrauterine morbidity and mortality. We report a case of spontaneous umbilical cord haematoma, which led to intrauterine fetal death.

Case report

A 30 year old third gravida was supervised regularly in our antenatal clinic and had an uncomplicated

antenatal period till 38 weeks and 4 days period of gestation. Patient had two full term deliveries 6 years and 3 years back in a private clinic. Her first baby died on the second day of life because of severe birth asphyxia during delivery. Her second pregnancy was uneventful and she delivered vaginally a live born female baby at term.

During this pregnancy her routine investigations were normal. Her last visit to the antenatal clinic was at 38 weeks and 4 days and no abnormalities was detected on clinical examination. She perceived good fetal movements. Next day she reported to the labour room with labour pains. At admission her blood pressure was normal and she was getting mild uterine contractions. The cervix was 3 cms dilated, membranes were intact but foetal heart could not be localized. After 3 hours, she delivered a still born female weighing 2.7 kg. The baby did not have any congenital malformations. The placenta was grossly normal. The cord length was 50

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cm but the cord had a haematoma measuring 7cm X 6 cm (approximately 6 cm from the cord insertion to the baby). Rest of the umbilical cord was normal. The umbilical cord and placenta was sent for histopathologic examination. The histopathological report of the affected part of the umbilical cord showed tortuosity of the umbilical vein with thinning and tearing of the media and circumferential haematoma extending into the Wharton's jelly (Fig. 1). Both the arteries however, did not show any pathological change.



Fig 1: Photomicrograph showing tear in the media of umbilical vein and fresh hemorrhage in Wharton's jelly (H&E x 100)

Discussion

Most umbilical cord haematomas are of iatrogenic etiology resulting from either inadvertent laceration at the time of amniocentesis or intentional penetration of the umbilical vein during cordocentesis(1). Spontaneous umbilical cord haematomas are very rare (1 in 5,500 births) and they are often due to rupture of the umbilical vein(2). In a report, risk factors for this were possibly shortness or traction of the cord, post maturity and infection. It is a life threatening gestational accident and is a very rare cause of severe fetal distress or intrauterine fetal death. In our case, the intrauterine death was most

likely due to spontaneous umbilical cord haematoma as the patient had a totally uncomplicated antenatal period and there were no risk factors to explain this outcome.

In the previous case reports of spontaneous umbilical cord haematoma the exact etiology was not known. The various risk factors postulated include shortness of the cord, post maturity and chorio-amnionitis (2,3,4). None of the above mentioned factors were present in our case.

There have been a few case reports of antenatal diagnosis of spontaneous haematoma of the cord by ultrasonography (5,6). Ruvinsky et al reported sonographic diagnosis of spontaneous cord haematoma in a patient with fetal demise at 32 weeks gestation which in the absence of any other pathology, was considered to have caused fetal death.

In conclusion, the rare possibility of umbilical cord haematoma must be considered in cases of unexplained intrauterine fetal deaths.

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