DOI: 10.7860/JCDR/2015/16106.6856

Case Report

Obstetrics and Gynaecology Section

Umbilical Cord Haematoma Causing Still Birth- A Case Report

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ABSTRACT

Still birth continues to be one of the many challenges that an obstetrician has to face. Still births that occur in the antenatal period are more difficult to explain than that which occurs intrapartum. The latter is most often due to intrapartum asphyxia, medical complications or infections; however a cause for antenatal still birth is difficult to ascertain. A thorough examination of the case along with necessary investigations might not necessarily reveal any cause and this leads to considerable anxiety for both the mother and the treating obstetrician. In the investigation of a case of still birth a detailed examination of the placenta and cord has to be emphasised as a considerable number of still births that are thought to be unexplained may be attributable to placental or cord pathologies. Here we present one such case where an umbilical cord haematoma resulted in intrauterine foetal death.

Keywords: Chorioamnionitis, Cord pathologies, Intrauterine foetal death

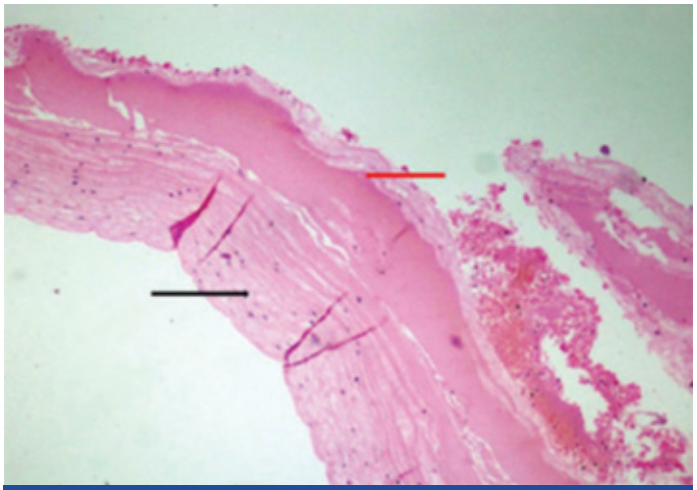
CASE REPORT

A 27-year-old multipara who presented to the antenatal outpatient department at 35 weeks of gestation with complaints of decreased foetal movements. Her first pregnancy was complicated by severe preeclampsia at 34 weeks for which she was induced and delivered by Emergency Caesarean Section. In the current pregnancy, she was diagnosed to be a pregestational diabetic and her sugars were well controlled prior to and during pregnancy. She had regular antenatal check-ups and her last visit at 33 weeks was normal with foetal growth corresponding to the period of gestation. She reported to the outpatient department (OPD) for routine antenatal visit two weeks later and complained of decreased foetal movements for one day. Foetal heart tones were not located and an ultrasound scan done confirmed foetal death. Her sugar levels and blood pressure readings were checked, however, a cause for foetal death was not found. She was counselled and admitted for induction with Foley's catheter. After Foley's induction she went into labour and delivered a macerated still born female foetus weighing 2.1 kg with no visible external anomalies.

Placenta was unhealthy with central cord insertion and the umbilical cord had 4-5 sausage shaped swellings suggestive of cord haematoma of varying sizes all along the length of the cord with the largest measuring 6x3 cm. Placenta and cord were sent for histopathological examination. A foetal autopsy was advised but not performed as family refused.

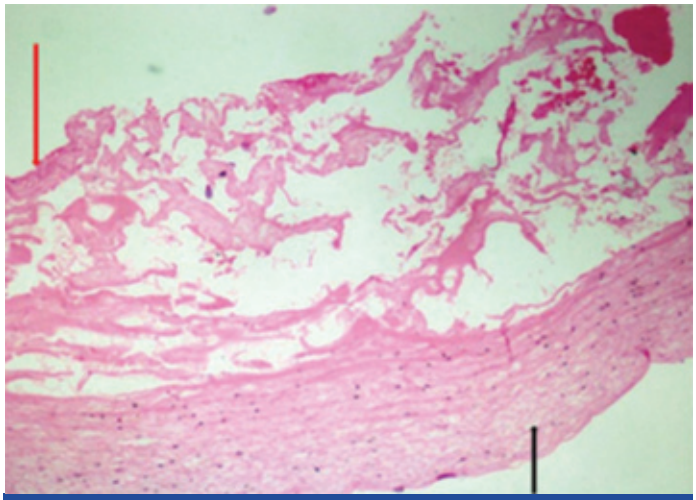
[Table/Fig-1]: Picture of placenta and cord immediately after delivery (cord haematomas seen as sausage shaped swellings along the entire length of the cord)

[Table/Fig-2]: Gross picture of placenta and cord



[Table/Fig-3]: Microscopic picture of umbilical cord haematoma (black arrow shows umbilical cord, red arrow shows organized haematoma)

Grossly the cord along its entire length had multiple swellings suggestive of umbilical cord haematoma [Table/Fig-1,2]. Histopathological examination of the placenta and cord confirmed the presence of haematoma [Table/Fig-3,4] In addition,



[Table/Fig-4]: Four times magnification of [Table/Fig-3] (4x)

examination of the placenta and membranes showed evidence of chorioamnionitis. The haematoma in this case was most likely secondary to an inflammatory pathology.

DISCUSSION

Still births continue to be a cause for major concern for both the obstetrician and expectant mother. The estimated still birth rate worldwide is around 3.2 million per year with the vast majority of the cases occurring in the developing countries [1]. Although there are many causes for still birth, a vast majority are unexplained. Unexplained still birth rates reported were initially reported by the Wigglesworth classification to be as high as 66.2% but with the ReCoDe classification only 15.2% remain unexplained [2]. Amongst the placental and cord abnormalities, umbilical cord haematoma has been reported as a rare cause for still birth and foetal distress [3,4].

Umbilical cord haematoma is a rare cause for still births with a reported rate of around 1:5500 [5]. The perinatal loss associated with this condition is greater than 50% [4]. The causes for development of umbilical cord haematoma are varied such as infections, twisting and traction of cord, true knots, vessel wall abnormalities, umbilical cord cysts, trauma, post term and many remain unexplained [4,6]. Iatrogenic causes secondary to amniocentesis, in utero transfusions and diagnostic cordocentesis are also reported [7-9]. Cord haematomas can arise during pregnancy which can lead to foetal death or may occur during labour giving rise to foetal distress as evidenced by cardiotocographic (CTG) abnormalities [10,11]. Case reports of cord haematomas giving rise to foetal heart rate abnormalities in labour have been reported [12]. Even after emergency Caesarean section many neonates developed hypoxic ischemic encephalopathy and died in the neonatal period. There have also been reports of haematoma complicating umbilical cord cysts identified on ultrasound [13].

In majority of the cases, the haematomas are located at the foetal cord insertion site [14]. Rupture of umbilical vein accounts for the majority of the haematomas and in around 10% umbilical artery ruptures [4,15]. Foetal death is caused as a result of anoxia due to compression of foetal vessels by the haematoma or by exsanguination of foetal blood [15].

In the above described case scenario, prior to delivery, the cause for foetal death was not clear and umbilical cord haematoma was not picked on the ultrasound. All investigations for unexplained still birth were sent. The patient had maintained logs of self-monitored sugar values and blood pressure and all these were found to be normal. After delivery, cord haematoma was identified.

CONCLUSION

The need for detailed examination of placenta, membranes and cord has to be emphasized as majority of the still births classified as unexplained could actually be due to a cordonal pathology. This clear identification also helps in better counselling of the patients and relieves their stress. It is also necessary to try to identify a cause as many of these can be recurrent and appropriate identification will help in prevention of the same.

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FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: **Aug 09, 2015**
Date of Peer Review: **Sep 03, 2015**
Date of Acceptance: **Sep 05, 2015**
Date of Publishing: **Dec 01, 2015**