

Case Report

Fetal Death in Utero Associated with a Double Circular Umbilical Cord Tight on Full-Term Pregnancy about a Case at the Lac Tele De Bamako Clinic

Fane Seydou^{1*}, Simpara Nouhoum², Sissoko Mahamadou⁷, Bocoum Amadou¹, Sylla Cheickna¹, Sima M⁴, Sanogo Amara Siaka¹, Traore Youssouf¹, Teguede Ibrahima¹, Cisse Garba Hamadoun⁶

¹CHU Gabriel TOURE, Mali

²District Hospital of the Commune 6, Mali

³District Hospital of Mali

⁴District Hospital of Teaching Point G, Mali

⁵District Hospital of the Commune 4, Mali

⁶Polyclinique LAC TELE de Bamako, Mali

⁷District Hospital of the Commune 2, Mali

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Abstract: Introduction: The circular umbilical cord corresponds to a winding of it in one or more turns of the whorl around the fetal neck. **Case observation:** She is a 25-year-old primigeste, married, a nurse by profession with no known medical-surgical history, who consulted for painful uterine contractions on pregnancy of 38 weeks of amenorrhea (AS). This is a pregnancy well followed by a gynecological-obstetrician with 06 quality antenatal consultations. The clinical and biological monitoring parameters were well documented in the antenatal diary and show no abnormalities. **Conclusion:** Fetal death in utero is a common pathology but association with umbilical cord circulars is rare. When the umbilical cord circular is double and tightened around the neck like a knot of the cord. It could be the cause of unexplained fetal death. It is always a tragedy for the parents and a failure for the obstetrician. It is necessary to reassure the woman and her family about the prognosis of subsequent pregnancies.

Keywords: Fetal death, pregnancy, urgency.

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INTRODUCTION

The circular umbilical cord corresponds to a winding of it in one or more turns of the whorl around the fetal neck. This is a situation whose prevalence varies worldwide from 5.5 to 35.1% [1]. The majority of these circulars are loose and have no consequences for the fetus. The discovery of unexplained fetal death may prompt the practitioner to establish a causal link. However, predictors of perinatal mortality in umbilical cord circles are often not well established [3, 4]. After careful analysis of pregnancy monitoring and delivery progress, we ruled out all other underlying causes of perinatal mortality. It should be noted that in a high proportion of cases, even after an autopsy and samples, the death remains unexplained. It may have been caused by an umbilical cord 'accident': either a knot has formed around the neck and in this case it is found at birth, or the baby has compressed his cord for a prolonged time, causing oxygen to stop. But we must not fear, one in three or four children is born with the cord wrapped around the neck or arm without there being dramatic

consequences [3, 4]. Here we present the illustrated case of fetal death associated with a tight double circular umbilical cord.

CASE OBSERVATION

She is a 25-year-old primigeste, married, a nurse by profession with no known medical-surgical history, who consulted for painful uterine contractions on pregnancy of 38 weeks of amenorrhea (AS). This is a pregnancy well followed by a gynecological-obstetrician with 06 quality antenatal consultations. The clinical and biological monitoring parameters were well documented in the antenatal diary and show no abnormalities.

Indeed the history of pregnancy reveals:

- a date of the last period dating back to 15/07/2017 or 38 SA
- 06 prenatal consultations carried out at the Lac Télé polyclinic by a gynecological-obstetrician (blood pressure values were normal, pulse normal, normal temperature, normal HUs

*Corresponding Author: Fane Seydou

CHU Gabriel TOURE, Mali

values for age, normal urine strips, no pathological leucorrhoea, vaginitis), two doses of tetanus vaccination performed; malaria chemoprophylaxis provided by 03 doses of sulfadoxine-pyrimethamine; prevention of anemia was ensured by the continuous intake of iron plus folic acid until the time of delivery. No associated pathology was found observed during its follow-up.

- A prenatal work-up was performed and included a positive rhesus A group; a negative Bordet Wassermann (BW); a negative Emmel test (TE); negative toxoplasma serology, negative albuminuria and glycosuria, HIV negative serology; Threeobstetric ultrasounds were performed, including one in the first and two in the third trimester without abnormalities detected.
- The exam of admission in the delivery room: At the interrogation we note an absence of active fetal movements since the beginning of the contractions, two hours before his admission to the clinic. We did not find a notion of premature rupture of membranes (RPM); no fever; dysuria, pollakiuria

On physical examination: The patient was in good general condition; a good conscience with a Glasgow = 15/15; no oedema of the lower limbs, temperature (To) = 37 ° C; TA: 120/70 mm hg; respiratory rate: 16 cycles/min; negative strip proteinuria.

On Examination of the Breasts: They are symmetrical, anodular, pregnant pairs.

Cardiovascular System: BDC audible, regular without breath or noise added, with a maternal pulse: 70 beats per min

Pulmonary System

Harmonious thorax, symmetrical, vesicular murmurs perceived, vocal vibrations well transmitted, respiratory rate: 16 cycles/min.

Abdomen

Large, pregnant uterus with longitudinal development; uterine height: 32 cm; 2 contractions every 10 minutes; fetal back on the left; cephalic presentation; BCF not perceived on the stethoscope of Pinard. Au vaginal touch: the cervix was erased, short (0.5 cm), dilated to 2 cm; OIGA cephalic presentation engaged at level 0 on a clinically normal pelvis. The glove returned stained with mucous plug. A partogram has been introduced for the monitoring of labour at birth. The labour has evolved normally with as a result the peculiarity absence of sounds from the fetal heart, allowing after 5 hours of time the spontaneous delivery of a macerated stillbirth with a double circular serum around the neck. The stillborn had a male sex; weighing 2500g; a size: 49 cm. The length of the cord was 80 cm. The fetoplacental examination finds a skin detachment in places;

Ultrasound Aspects

Obstetric ultrasound performed in emergency does not find fetal cardiac activity with a cephalic presentation. The fetal weight was 3270 g, it had a tight double circular from the umbilical cord to the neck with color Doppler in a context of meconium amniotic fluid.

Fetal biometrics return to a gestational age of 38 weeks.

The placenta was wellinserted away from the cervix grade III maturation

Amniotic fluid was normal for the age of pregnancy. At the Doppler echography the circular velocities were zero with a resistance index (IR) = 0. Morphologically the umbilical artery was normal.



Figure 1: Obstetrical Ultrasound, Axial Section Showing a Double Circular Umbilical Cord at the Neck of a Pregnancy of 38 Weeks of Amenorrhea



Figure 2: Double Circular Tight Umbilical Cord around the Neck at the Time of Expulsion of the Fetus

DISCUSSION

We present here a case of fetal death in utero associated with a double circular of follow-up Prenatal without particularity. Fetal death by strangulation requires the presence of numerous circulars, early and tight with a deep cord impression, facial petechiae, and subconjunctival hemorrhages [1]. However, the risk factors independent of the double circular were found, namely the long cord, the primiparity. The Doppler study of venous blood flow shows disturbances of venous blood corresponding to late decelerations. Guindo D O [2], in Mali found in 2006 1.81% (1/55) of foetal deaths due to a tight knot of the horn. Moutongo [2], found in his study 2.22% of fetal death in utero related to funicular anomalies (double knots and tightened umbilical cords). According to Dubois *et al.*, [3], the closer we get to the term, the more frequent funicular complications are. Mercier *et al.*, [3], found 3.45% fetal death in utero Mounzer [4], found 4.7%. These fetal deaths are almost always late and unpredictable. The etiology not found represented 21.8% in the study of Guindo D O (2); 8.89% for Moutongo [5]. Mounzer [6], 14%; Lansac and pass [7, 8], showed that in 20 to 50% of cases, the cause of fetal death remains mostly unknown despite our current diagnostic means. In our case, the audit of this death led to the conclusion of a tight double circular as an etiological factor given the absence of maternal and fetal pathology detected at the CPN, on examination of the fetus and placenta.

CONCLUSION

Fetal death in utero is a common pathology but association with umbilical cord circulars is rare. When the umbilical cord circular is double and tightened

around the neck like a knot of the cord. It could be the cause of unexplained fetal death. It is always a tragedy for the parents and a failure for the obstetrician. It is necessary to reassure the woman and her family about the prognosis of subsequent pregnancies.

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