

Complications Associated With a Monochorial Twin Pregnancy Monoamniotic.

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Abstract

A case report of a monoamniotic monochorionic twin pregnancy is presented and a literature review of its associated complications is carried out. A literature search was carried out in databases such as Medline / Pubmed, selecting articles published in Spanish and English during the period from January 1990 to May 2013. The terms “twins”, “monozygotic twins”, “multiple pregnancy”, “twin pregnancy”. Review articles and cross-sectional studies were included.

Monoamniotic monochorionic twin gestation is a rare event. This condition is associated with multiple obstetric complications including fetal death related to umbilical cord accidents (crossovers). The objective of prenatal care is the prevention of fetal mortality, so continuous testing of fetal well-being is suggested. Termination of pregnancy in the 34th week of gestation by caesarean section, after administration of steroids, has been proposed.

Keywords: Twins, Monozygotic Twins, Multiple Pregnancy.

Introduction

Monoamniotic monochorionic twin pregnancy is an obstetric singularity that has several complications in morbidity and mortality both for the mother and for the fetus, such as miscarriages, hyperemesis gravidarum, anemia, gestational hypertension, bleeding disorders and the one that predominates with the highest mortality for the fetus is the twisting of umbilical cords together causing death. It has been described that twin pregnancies have an incidence of 1% of spontaneous pregnancies and that monoamniotic monochorionic pregnancies have an incidence of 1 / 10,000 pregnancies [1].

Taking into account the multiple existing controversies regarding prenatal follow-up, management interventions and time to completion of this type of multiple gestation, and its complications having a great impact on perinatal morbidity and mortality, this case report is presented with the objective of making a review of the literature regarding the prognosis of this type of pregnancy, prenatal follow-up and management interventions until its completion.

Clinical Case

22-year-old multigestant patient, controlled by her doctor, with

good prenatal controls, brings her paraclinical reports up to date, and with a positive intra-institutional toxoplasma test report and with ultrasound reports where all confirm monoamniotic monochorionic twin pregnancy, the ultrasound of the second trimester shows pregnancy of 32.1 weeks, it is unknown if the patient had a history of pathologies during pregnancy. She entered the emergency service on 05/08/2020 at 8 + 21 hours, she reports that she has scheduled surgery, admission fetal monitoring is performed, shows regular uterine activity. Diagnosis on admission: Multigestant, 32.1-week twin pregnancy. On physical examination, weight 104 kg, 160 cm height, 108 pulse, 132/65 blood pressure, 36.0 C temperature. Normal cardiopulmonary examination, no edema in the lower limbs, oriented in the three spheres. Uterine height 40 cm, both fetuses in head, beats 150 and 152 per minute respectively. On genitourinary examination normoconfigured, normal elastic vagina, normo thermal, cal vaginal touch long posterior neck closed without vaginal leakage Tests: group O Rh (+), hemogram: Leukocytes 10,000, hematocrit 35%, hemoglobin 11.3 g / dl, platelets 392,000. Rapid test for negative treponemal syphilis. An emergency cesarean section is indicated for High Obstetric Risk.

He was admitted to the emergency surgery rooms for transperitoneal segmental cesarean section at 12 + 00h, to the medical eval-

uation: Afebrile patient, calm, fetuses in cephalic position, useful pelvis. At 12 + 28 hours, fetus I, male, weight 2,150 g, Apgar 6.8 and 9 was extracted at 0, 5 and 10 minutes respectively. In neonatal adaptation it requires 2 cycles of positive pressure ventilation (PPV). At 12 + 30h the fetus II is extracted, male 2,020g, Apgar 6.8 and 9 at 0, 5 and 10 minutes respectively, it requires assisted adaptation with 1 cycle of PPV with the presence of respiratory distress. Twins are taken to the Neonatal Intensive Care Unit (NICU).

In the surgical finding, the first live product was found in the head, the second fetus in the transverse cord, intertwined with multiple true cord knots (Figure 1), a single placenta, citrine fluid, and free attachments. Specialist doctor does not send the placenta to pathology. The patient is transferred to recovery and four hours later she goes to hospital for her recovery where she evolves without complications and is discharged after 24 hours postoperatively, leaving her newborns hospitalized in the NICU.



Figure 1

Evolution of Twins Newborn Epicrisis in the NICU (05/10/2020)

1. Twin 1 progresses with signs of moderate to severe respiratory distress with orotracheal intubation, surfactant is administered with suspected hyaline disease, with normal paraclinics, in a regular state with invasive mechanical ventilation with inotropic requirements and medical orders, patient continues to be monitored within the NICU, awaiting continuous clinical improvement in the institution.
2. Twin 2 in critical condition with high-frequency mechanical ventilation with left closed thoracostomy with non-oscillating water trap without bubbling due to tension pneumothorax, presents 2 sudden cardiac arrests requiring advanced cardiopulmonary resuscitation plus support medications, pneumothorax is decompressed. At 5 + 15 on 05/10/2020, newborn in very poor general condition, premortem appearance, mydriatic pupils not reactive to light, mucocutaneous pallor, poor capillary filling, peripheral cyanosis, light heart rate and decreasing saturation, is administered inotropics at maximum dose.

Newborn died 5 + 35 due to multisystemic organ failure, secondary to risks of respiratory neurological prematurity, respiratory distress syndrome, spontaneous tension pneumothorax.

Discussion

In our clinical case, we see that we initially have a twin pregnancy as a diagnosis by ultrasonography, which did not demonstrate the suspicion that the cords are intertwined and with multiple true knots, which was confirmed at delivery when examining the placenta, this being a cause that fetal distress may exist [2].

We see that the two twins in neonatal adaptation required PPV and that they later supported with inotropics. Multiple pregnancies are of low incidence but when comparing perinatal morbidity and mortality with those of a single gestation, it is associated with an increase in complications since there is a 17% higher risk of prematurity than in single pregnancies before week 37 gestation. It must be taken into account that preterm newborns with multiple gestations that survive have a high risk of sequelae, whether physical or mental, of approximately 4 to 5% [3]. Monoamniotic monochorionic twins have a prevalence of being premature and of presenting hyaline membrane and death in 50%. (Table 1) [4].

Tabla N°5. Complicaciones neonatales, según Corionicidad de los gemelos ingresados en Neonatología. Hospital de Especialidades José Carrasco Arteaga. 2010- 2017

Complicaciones	Bicorial		Monocorial			
	N°	%	Biamniótico		Monoamniótico	
			N°	%	N°	%
Prematurez	50	96.15	34	89.47	2	100
Restricción en el Crecimiento Intraútero	19	36.54	25	65.79	-	-
Taquipnea transitoria	27	51.92	10	26.32	-	-
Discordancia de peso	12	23.08	22	57.89	2	100
Hiperbilirrubinemia	24	46.15	10	26.32	-	-
Sepsis neonatal	20	38.46	13	34.21	-	-
Membrana hialina	13	25.00	12	31.58	2	100
Enterocolitis necrotizante	5	9.62	2	5.26	-	-
Malformaciones congénitas	-	-	2	5.26	-	-
Síndrome de Transfusión Feto - Fetal.	-	-	2	5.26	-	-
Siameses	-	-	-	-	-	-
Otro (hemorragia pulmonar, hipoglicemia displasia broncopulmonar.)	8	15.38	7	18.42	-	-
Fallece	-	-	2	5.26	1	50
	52		38		2	

Fuente: Libro de registros de ingresos en Neonatología
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