

A case of complete atrioventricular block with complication of postnatal sepsis

Nieto-Pascual L, Romero-Nieto I, Rubio Orduyo E, Rodriguez Cano E, Miño Mora M
Reina Sofia University Hospital, Cordoba, Spain

Objective

We present the case of a fetus with prenatal diagnosis of complete AV block with altered fetal Doppler and intrauterine growth restriction (IUGR) with neonatal sepsis complication.

Methods

This is a case report.

Results

Pregnant, 28 years old, first pregnancy, with no personal history of interest and no allergy to known medications. No toxic habits. Spontaneous pregnancy with screening of the first trimester with low risk. Serologies: Immune rubella, negative toxoplasma, negative lues, negative HIV. Normal follow-up of low-risk pregnancy until ultrasonography of abnormalities in week 20. The sonography diagnoses the fetus of complete AV block with structurally normal heart, with ventricular heart rate at 60-80 beats per minute. Diagnosis of positive anti-Ro antibodies without the presence of other autoimmune diseases. Treatment with corticosteroids is established. Fetal and pregnancy control is carried out in the Fetal Medicine Unit of our hospital. We carry out an exhaustive follow-up and inform the fetal prognosis. The end of pregnancy was decided at week 35 due to intrauterine growth restriction (IUGR). Sonography: cephalic fetus, amniotic fluid index 6.5, PI UA 1.52 ($p > 95$), PI MCA 1.62 ($p 29$), PSV MCA 49.8 (normal), normal CPI, estimated fetal weight 1890 (p1), fetal heart rate at 80 beats per minute. A scheduled cesarean without complications was performed, a female baby of 1856 grams was delivered, Apgar 8/9 and pH 7.27. Gentamicin and metronidazole were administered as intra-surgical prophylaxis. The suppression of breastfeeding was established with cabergoline at the request of the patient. A descending corticoid regimen was prescribed. The neonate enters to the neonatal unit with a favorable evolution, without the need for resuscitation, without oxygen bag / mask, without adrenaline, without cardiac massage or intubation. Valuation by cardiologist upon admission. A complete AV block was confirmed on the electrocardiogram, which shows a heart rate of 90-100 bpm without hemodynamic repercussion. On echocardiography in the first hour of life, biventricular hypertrophy with permeable foramen ovale and ductus arteriosus of medium size with bidirectional derivation was observed. Electrocardiographic and echographic controls in the days after admission was repeated without significant changes. The neurological examination at admission was normal and the cerebral ultrasound without significant changes. The neonate begin to feed artificial milk with formula, with irregular tolerance to aliment after 7 days of life. At 16 days of age, the neonate develops a fever that responds to oral paracetamol. At this time, a hemogram was performed with normal results and biochemical results with a slight increase in the biological parameters of the infection (PCR 27.6 mg / L, procalcitonin 1.30 ng / mL). Blood culture extraction is performed and empirical antibiotic treatment is started against nosocomial infection with vancomycin and intravenous amikacin. At 6 hours, a deterioration of the general state with fetal hyporeactivity occurs. The vital signs of the neonate (heart rate 93, respiratory frequency 43, blood pressure 100/58) persist and the neonate is afebrile and with 100% oxygen saturation with oxygen at 39% in nasal flow at 2 liters. Due to clinical worsening, gasometry is performed that shows a metabolic acidosis with lactate elevation, which is why it is transferred to the neonatal intensive care unit where the orotracheal intubation is performed and the connection to assisted / controlled mechanical ventilation. After this, the newborn presents a progressive hemodynamic deterioration that requires the continuous administration of vasoactive drugs in maximum doses. Meropenem is also added to the antibiotic treatment. The progressive hemodynamic deterioration continues and, finally, the neonate dies at 11 hours after the onset of fever. After death, the result of a positive blood culture for E. Coli, sensitive to the usual antibiotic therapy, is received.

Conclusion

The fatal conjunction in our case of a fetus with AV block, premature, of low weight and with infection by late E. coli triggered a fatal outcome. It is important to promote breastfeeding or feeding with donated maternal milk in premature fetuses with pathology.