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RESEARCH ARTICLE

ANESTHETICMANAGEMENT IN NEONATEWITH COMPLETE AV BLOCK

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ABSTRACT

The present document is the reported a case of a complete congenital AV block of female without having previously undiagnosed during gestation, and which is detected at 38 weeks, thus necessitating the cesarea by fetal bradycardia. Requiring maneuvering of resuscitation and management of intensive therapy for definitive treatment, as a matter of paramount importance the mother is healthy without the presence of some autoimmune disease and the neonate did not present any structural alteration like isomerism or some truncal anomaly.

INTRODUCTION

The physiological conduction system is formed by the sinus node, the AV node and the bundle of His, which includes the right and left branches of the truss, as well as the Purkinje system. The conduction system could be understood as a hierarchy of pacemakers, which the sinus node is the primary pacemaker of the heart. In 1907, Keith and Flack identified the sinus node as the region responsible for the main activation of the heart. It is a crescent-shaped structure that is located in an epicardial position in the terminal sulcus, between the superior vein cava and the right atrium 1. Complete congenital ventricular atrial block (BCC) is a lesion in the conduction tissue that happens before birth in which there is a delay or interruption of the electrical impulse of the sinus node at the level of the atrioventricular node. its happens commonly as congenitally in one of every 20,000-25,000 live births. Related with an abnormal embryonic development of the atrioventricular node and structural cardiac anomalies or maternal immunization with antibodies that irreversibly damage the cardiac tissue of the fetus. 2.3

CLINICAL CASE

We present the case of a female patient in the first day of extrauterine life, her diagnosis is a complete block AV of third grade

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Perinatal record

Product of second pregnancy, a 24-year-old mother that had apparently healthy pregnancy, a positive "A" hemo type without any record of autoinmune disease or immunodeficiency with normoevolutionary pregnancy. It was obtainedvia abdominal bythepresence of fetal bradycardia at 40 weeks of gestation, so an emergency caesarean section was performed. Weight 3200 grams, Size 50 cm, PC 31 cm, PT 33 cm temperature 36.5 C doesnotcry, doesnotbrea the at birth, with decreasedt one, HR 40 x lpm, pulmonary fields ventilated heart sounds with presence of systolicmurmur in pulmonaryfociTheheart and lungs of the second heart sound, required a positive ventilationcycle, respiratory effort was achieved, a base of atropine and adrenaline was managed according of the second level hospital in Tapachula Chiapas, without response she was sent immediately by air to a thirdlevelhospital. The electrocardiogram with sinus rhythm confirms complete AV block. Figure 1 Chest Rxistaken Figure 2.

An echocardiogram was performed that reports a 4 mm permeable foramen, with a short circuit from left to right. Permeable ductus arteriosus, 3 mm aortic cape, pulmonary 3, 1 mm gradient of 12 mm Hg, PSAP 55 mm Hg, preserved biventricular function. Anesthetic management is given under general intravenous anesthesia: It is received in a patient room with a cannula 4.0 with fixed, with dopamine, vital signs TA 100/30mmHg FC 49lpm Spo2 90%.

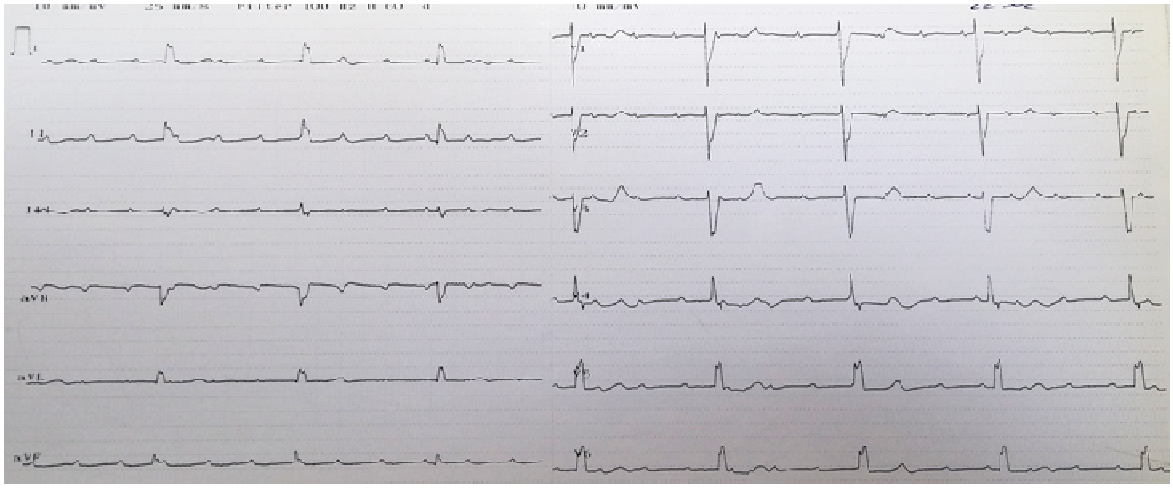

Figure 1. Electrocardiogram of 12 patient admission leads where complete block adeisevidenced

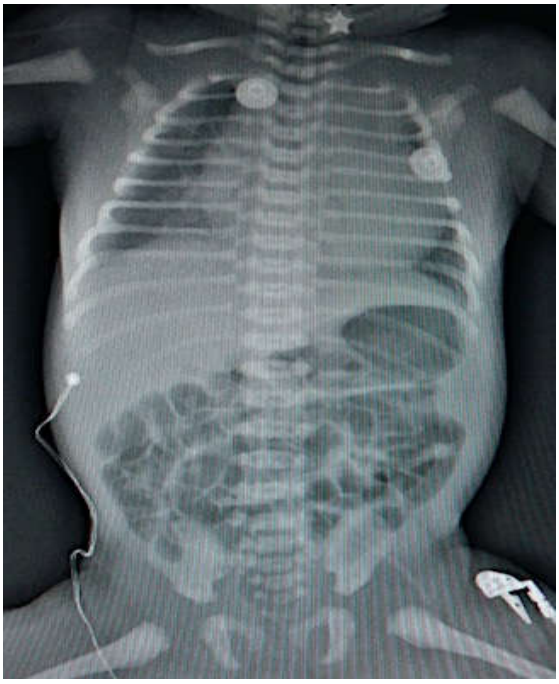

Figure 2. Rx thorax showing cardiomegaly

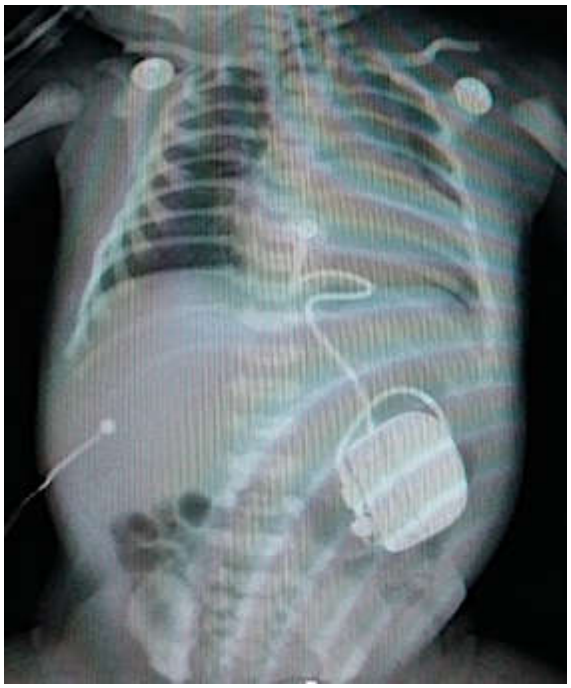

Figure 3. Rx thorax after definitive pacemaker placement

A general endovenous anesthesia is performed: Induction with Ketamine 5 mg, Fentanyl 15 mcg iv, Propofol 10 mg iv, Rocuronium 20 mg IV anesthetic maintenance by infusions of Fentanyl 10 mcg / kg / h, Midazolam 100 mcg / kg / h, Dobutamine. 7 mcg / kg / min Pressure controlled mode ventilation, FiO2: 40%, PEEP, 4 cycloid 30, ppico 20, handling saturations of 95%. During the transanesthesic the initial gasometryPh 7.35, PCO2 42, PO2 45%, Lac 3.0, HCO 22, Glu 89. Water balance -11 ml, admission 61 ml discharges, Urinary output of 2.3 ml / kg / h, minimum bleeding last gasometry in acid base equilibrium. Procedure is performed without eventualities and left with ventilatory support in NICU.

Conclusion

Exists reports of implantation of a definitive pacemaker in the previous version and they was very acceptable success and survival rates exists reports of neonates under 1,500 grams

It is expected that with the detection of more cases with rare pathology, more experience and better care was provided to these patients guarantee a better prognosisand long-term survival.

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