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Case Report

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A PULMONARY EMBOLISM REVEALING MEADOWS SYNDROME

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ABSTRACT

Peripartum cardiomyopathy is defined by society European cardiology, by "dilated cardiomyopathy manifesting itself in the period of per partum in a previously healthy patient". We report case of a 27-year-old patient with no medical history, which presents itself in a picture of pulmnaire embolism in etiological exploration revealed the underlying presence of a cardiomyothia of the peripartum.

KEYSWORDS: MEADOWS syndrome, Peripartum, Thromboembolic manifestations.

INTRODUCTION

MEADOWS syndrome or Peripartum cardiomyopathy (PP-CMP) is a rare cause of dilated cardiomyopathy occurring in late pregnancy or in the months following childbirth. Thromboembolic manifestations can complicate this syndrome but are rarely revealing. The course is unpredictable, sometimes favorable, but often there is a persistence or worsening of heart failure that can be deleterious.

CASE REPORT

A 27-year-old patient with no medical history, is hospitalized in the intensive care unit following a remedial 15 days after a normal delivery. The pregnancy proceeded normally. Angioscanner showed bilateral proximal pulmonary embolism. ETT regains an aspect of dilated cardiomyopathy with global hypokinesia and impaired left ventricular function.

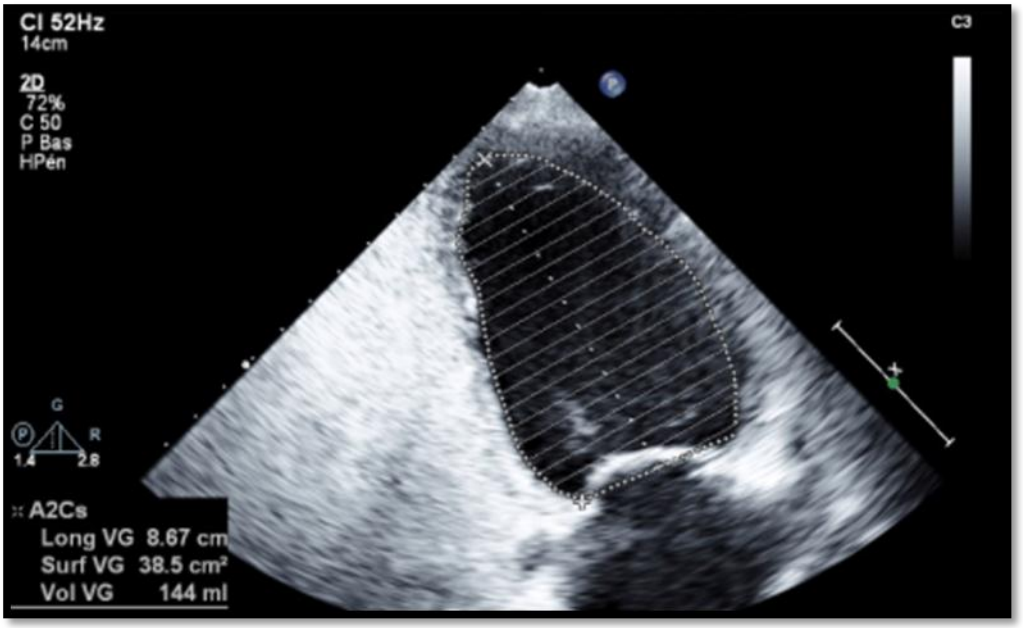

Figure 1: Appearance of dilated LV cardiomyopathy.

Coronary angiography shows an angiographic healthy coronary artery. A cardiac MRI is performed: the cine-MRI sequences confirm the global hypokinesis of the left ventricle, the LVEF is at 26%. There is no myocardial contrast on late sequences performed 10 minutes after gadolinium injection. The evolution under medical

treatment combining diuretic, IEC and BB is marked by a clinical and echocardiographic improvement with (FE at 55%).

DISCUSSION

Peripartum cardiomyopathy (PP-CMP) consists of a systolic left ventricular dysfunction manifested induring or during pregnancy, in the absence of pre-existing heart disease. It was originally defined in 1997 by a working group of the National Heart Blood and Lung Institute (NHBLI).[1] and was based on the association of 4 points: the occurrence of congestive heart failure in the month preceding or 5 months following childbirth; the absence of a cause found despite an exhaustive assessment; the absence of known heart disease before the appearance of the first symptoms; the presence on ultrasound of a left ventricular ejection fraction (LVEF) < 45% and/or a cavitary dilation with a ventricular tele diastolic diameter > 2.7 cm/m2.

the impact of CMP-PP is globally estimated at 1 in 3 to 4000 live births, with a wide geographical variety (from 1/4000 in the United States to 1/100 in Nigeria), variety whose reality cannot be affirmed in the absence of strong epidemiological data and due to small most registries with an interest in this condition.[2,3]

Several risk factors for peripartum cardiomyopathy have been identified: maternal age of more than 30 years or on the contrary less than 20 years, multiparity, multiple pregnancy and to a lesser extent maternal obesity, high blood pressure, pre-eclampsia, prolonged tocolysis.[4—6]

In terms of socioeconomic level, while there is a reported increasing incidence of peripartum cardiomyopathy in Black women, multiparous women subjected to intense physical work and from disadvantaged economic backgrounds, nearly one in two women have a medium or even high social level.[6,7]

Deficiencies in vitamin B1, A, E, C and B12, as well as zinc, copper, magnesium and selenium have been observed and may contribute to disruptions of cellular oxidative processes and decreased cardiomyocytic energy output.

Many pathophysiological hypotheses have been put: viral component (myocarditis), autoimmune, or hormonal, adaptive response unsuitable for hemodynamic variations in pregnancy, activation of cytokines, vitamin and/or selenium deficiency.[6,8] A genetic predisposition has been suspected in front of some cases of familial forms.

The classic clinical picture is that of a global heart failure, sometimes purely left, generally severe and extremely rapid insanity, sometimes over a few hours.[6] Dyspnea is in the foreground, with a type of superficial polypnea, effort and then worsening rapidly. Acute pulmonary edema, however, may be the first manifestation. This non-specific dyspnea poses a differential diagnostic problem, in this context, with pulmonary embolism.

Thromboembolic complications are not uncommon during CMPP (7 to 50% depending on the series) but they are rarely indicative of the syndrome as is the case of our patient and can even mislead the diagnosis. In fact, on the one hand, there is a state of hypercoagulability during pregnancy that persists a few months after delivery, on the other hand the dilation of the heart chambers will be responsible for blood stasis and therefore there will be formation of thrombi.

The potential severity of peripartum cardiomyopathy, its sometimes extremely rapid and unpredictable course and the possibility of refractory cardiogenic shock from the first hours justify that severe forms be transferred to a cardiological intensive care unit or resuscitation department with on-site cardiac surgery and extracorporeal circulatory assistance techniques.

The prognosis of peripartum cardiomyopathy is essentially related to the acute phase to the severity of the initial hemodynamic failure, echocardiographic data, response to therapeutic measures implemented and finally, thromboembolic complications. The long-term prognosis depends on the recovery of the left ventricular ejection fraction. The initial hemodynamic evolution is unpredictable and sometimes extremely brutal. The long-term prognosis depends on the recovery of the left ventricular ejection fraction. The initial hemodynamic evolution is unpredictable and sometimes extremely brutal. Initial mortality from refractory shock, embolic complications, or complications related to resuscitation measures is poorly known, but the figure of 10 to 15% is generally accepted.[7]

CONCLUSION

Peripartum cardiomyopathy is a serious cardiac complication of pregnancy. Often underdiagnosed and its origin is multifactorial, it's extremely rapid and totally unpredictable evolutionary potential justifies multidisciplinary care.

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