

## Peripartum Cardiomyopathy about 16 Cases at the Peace Hospital of Ziguinchor in Senegal

**Keywords:** Cardiology; Peripartum cardiomyopathy; Heart failure; Electrocardiogram

### Introduction

Peripartum cardiomyopathy (PPCM) is a rare entity defined as systolic heart failure occurring in the last month of pregnancy or the first few months postpartum, in the absence of known etiology or pre-existing cardiac disease [1,2]. Its incidence is variable and seems more important in black African women [3]. PPCM appears to be common in Africa, but epidemiological data are lacking, particularly in Senegal in its southern region.

We report the results of this study whose objective was to go over the epidemiological, clinical, paraclinical and evolutionary aspects of the PPCM in Ziguinchor, southern region of Senegal.

### Methods

This was a prospective descriptive study that took place over a period of 26 months (March 26th, 2015 to May 16th, 2017) at the Cardiology Unit of Ziguinchor Peace Hospital. All women, regardless of age and race, who had clinical signs of heart failure (HF) in the last month of pregnancy or in the first 5 months postpartum, were included in the study. The other criteria were: no identifiable cause and the cardiac Doppler echo signaled impaired left ventricular systolic function (left ventricular ejection fraction (LVFE) <45% and left ventricular internal diastolic diameter (LVIDD) >34 mm). The study excluded all women who had an onset of HF before the eighth month of pregnancy or after the first six months postpartum, and women with known heart disease or any other cause of HF. We had prepared a survey card for the collection of demographic data, prenatal check-books data, cardiovascular risk factors, the mode of onset or decompensation of the HF, the mode and course of delivery,

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period of 1 to 3 months postpartum in majority (62.5%) (Figure 1). The consultation time was late in the majority of cases with an average delay of 54.81 days (range from 11 to 120 days). The symptoms were dominated by exercise dyspnea (Table 1). In half of the cases, it was a left cardiac decompensation (50%). The physical signs were dominated by tachycardia (62.5%) and crackling rattles (62.5%) (Table 2).

Cardiomegaly was found in 87.5% of cases with an average cardio-thoracic ratio of 0.6 (range 0.52 to 0.7).

Electrocardiographic signs were dominated by sinus tachycardia (50%) and left ventricular hypertrophy (43.8%).

In the cardiac Doppler echo, the left ventricle (LV) was dilated in all our patients with an average LVIDD of 59.7 mm (range 54 to 71 mm). LVEF was also impaired in all our patients with an average LVEF of 34% (range 42 to 15). Table 3 summarizes the data of the cardiac echo-Doppler. Treatment consisted mainly of diuretics (100%) and angiotensin-converting enzyme inhibitors (93.8%). The use of beta-blockers was low (6.3%).

The average duration of hospitalization was 6.31 days (range 2 to 16 days). The evolution was favorable in the majority of the cases (87.5%) with regression of the clinical signs of cardiac insufficiency on leaving hospital, and we had to note 2 deaths during the hospitalization.

## Discussion

In our series, the average age of our patients was 26.75 years, lower than that reported by most authors [4] who found an average age greater than 30 years. However more than a third of our patients were over 30 years old. The other risk factors for PPCM found in our series were black race, multiparous, and adverse socioeconomic conditions, in agreement with several studies [5-8]. However, risk factors such as twin pregnancies and pregnancy-induced hypertension can not be formally included in our study. The classical risk factors associated with the risk of PPCM occurrence are maternal age (>30 years), multiparity, twin pregnancies, African descent, obesity, high blood pressure and prolonged tocolysis (>4 weeks) [9].

In our series, symptoms appeared within 1 to 3 months after delivery with an average consultation time of 54.81 days, which is found in several studies [10]. Minimal decompensation following

delivery may be more difficult to recognize as signs such as asthenia, lower extremities edema, etc.

