RETROSTERNAL PAIN AND DYSPNEA IN EARLY PUERPERIUM: A DIAGNOSIS OF PERIPARTUM CARDIOMYOPATHY

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PROBLEM STATEMENT [1]

- Peripartum cardiomyopathy (PPCM) is a **rare** cause of pregnancy-associated heart failure (HF), with a **wide geographical variation** (for example: 1/4000 in USA, 1/100 in Nigeria).
- The precise physiopathologic mechanisms still remain **unknown**, probably being **multifactorial**. A number of risk factors have been identified: age > 30 years, multiple gestation, history of preeclampsia, eclampsia and postpartum hypertension.
- PPCM is a **diagnosis of exclusion**, based upon **three main criteria**: development of HF toward the end of pregnancy or in the months following delivery, absence of another identifiable cause of HF, and left ventricular (LV) systolic dysfunction with an LV ejection fraction (LVEF) generally less than 45 percent.
- The clinical presentation is **variable** and usually **non-specific**: dyspnea, orthopnea and pedal edema are the most frequent.

METHODS: We performed a clinical case retrospective review.

CASE REPORT

J.A.S., 29 years old, primigravida, caucasian, undergoing a pregnancy without complications

39 weeks and 3 days → Preeclampsia without severe features

Vaginal delivery of a healthy male new-born
(weight of 3680 gr, Apgar Index 9/10)

1st DAY POSTPARTUM:

- Sudden onset of retrosternal pain + dyspnea.
- Blood Pressure 180/100 mmHg, oxygen saturation 92%

- Arterial blood gas: hypoxemia, hypocapnia
- Computed tomography angiography: moderate bilateral pleural effusion, no signs of thromboembolism (fig. 1)
- Electrocardiogram: normal
- Elevated BNP (259)
- Echocardiography: global reduction in LV systolic function (LVEF of 51%), mild left atrial enlargement, mild to moderate mitral regurgitation and asymmetrical apical hypertrophy/trabeculations

PERIPARTUM CARDIOMYOPATHY

Transferred to the **intensive care unit** for close monitoring for two days: supplemental oxygen, antithrombotic therapy and triple antihypertensive medication with furosemide, enalapril and bisoprolol.

3 MONTHS FOLLOW-UP: complete recovery with normal Holter monitoring and echocardiography (only mild mitral regurgitation)

Figure 1: CT-angiography showing moderate bilateral pleural effusion, which identification prompted additional investigation

CONCLUSION

- PPCM remains a **difficult condition to diagnose and handle**, depending on the timing of presentation in relation to labour. The rarity of the condition, overlapping cardiomyopathy aetiologies and unspecific presenting features often result in late diagnosis.
- All women with PPCM should receive counselling on the **potential risk of recurrence with future pregnancies**. The risk is highest among women with persistent LV systolic dysfunction, although women with recovered LV systolic function are also at risk.