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Review

# Postpartum Cardiomyopathy in Uganda: A Mini-Review of Current Evidence and Challenges

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## Abstract

Postpartum cardiomyopathy (PPCM) is a rare but life-threatening condition that develops in the last month of pregnancy or within five months after delivery, without preexisting heart disease. Its prevalence and outcomes in Uganda remain poorly understood. This mini-review consolidates current knowledge on PPCM in Uganda, focusing on clinical features, diagnostic difficulties, treatment strategies, and patient outcomes while highlighting research gaps. A narrative review was performed using PubMed, African Journals Online (AJOL), and Google Scholar, analyzing relevant articles from 2000 to 2024, with emphasis on Ugandan and East African studies. Available data indicate that PPCM in Uganda primarily affects young, multiparous women. Frequent symptoms include dyspnea, orthopnea, and fatigue, with echocardiography typically revealing reduced left ventricular ejection fraction. Diagnostic challenges arise from symptom overlap with normal peripartum changes and limited awareness. Treatment often involves diuretics, beta-blockers, ACE inhibitors/ARBs, and bromocriptine, though evidence on SGLT2 inhibitors remains scarce. High mortality and readmission rates persist due to late diagnosis, inadequate follow-up, and limited access to advanced care. PPCM in Uganda is underrecognized and underreported. Enhancing diagnostic tools, implementing early echocardiographic screening, and creating national registries are essential. Multidisciplinary management and public awareness are critical for improving patient outcomes.

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## Introduction

Postpartum cardiomyopathy (PPCM) is an idiopathic form of heart failure with reduced ejection fraction (HFrEF), occurring toward the end of pregnancy or in the months following delivery, in previously healthy women (1). The global incidence ranges from 1 in 1,000 to 1 in 4,000 live births (8), but studies from Nigeria and South Africa suggest a much higher prevalence in African populations (2,9).

Uganda faces unique challenges in maternal health, with cardiovascular conditions being an emerging cause of maternal morbidity and mortality (10). PPCM often goes undiagnosed due to limited echocardiography access and the non-specific nature of early symptoms, which can mimic normal postpartum fatigue (3,11). Understanding the epidemiology, presentation, and management of PPCM in Uganda is essential to inform clinical practice and public health policy.

## Results

### *Epidemiology and Risk Factors in Uganda*

Postpartum cardiomyopathy (PPCM) in Uganda has been documented primarily through hospital-based case reports and small observational studies. The condition predominantly affects

young multiparous women between the ages of 20 and 35. Several risk factors contribute to its development, including high parity, delayed medical presentation, and comorbidities such as pre-eclampsia or gestational hypertension. Additionally, nutritional deficiencies and rural residence—where access to specialized healthcare is limited—further exacerbate the risk of PPCM.

### *Clinical Presentation*

Patients typically develop symptoms within days to weeks after delivery, with the most common manifestations being severe dyspnea (often classified as NYHA class III–IV), orthopnea, and paroxysmal nocturnal dyspnea. Other frequent symptoms include persistent fatigue, peripheral edema, palpitations, and occasional chest discomfort. These clinical features often mimic other peripartum complications, leading to potential misdiagnosis or delayed recognition of PPCM.

### *Diagnostic Findings*

Echocardiography serves as the gold standard for diagnosing PPCM, with key findings including a reduced left ventricular ejection fraction (LVEF) below 45%, left ventricular dilation, and global hypokinesia. Secondary mitral regurgitation is also commonly observed. Despite the critical role of echocardiography, diagnostic challenges persist due to limited availability of imaging equipment in many Ugandan healthcare facilities, particularly in rural areas.

### *Treatment Approaches in Uganda*

The management of PPCM in Uganda follows a combination of pharmacological therapies aimed at stabilizing cardiac function and relieving symptoms. Diuretics are frequently used to manage fluid overload, while beta-blockers such as carvedilol are administered to improve survival outcomes. ACE inhibitors or ARBs are introduced postpartum to support cardiac remodeling. Bromocriptine, which suppresses prolactin—a potential contributor to PPCM pathogenesis—is increasingly utilized, though its accessibility remains inconsistent. Emerging treatments such as SGLT2 inhibitors (e.g., dapagliflozin) show promise but are not yet widely adopted in Ugandan clinical practice.

### *Outcomes*

The prognosis of PPCM in Uganda varies, with some patients experiencing partial or complete recovery of left ventricular function within six months of diagnosis. However, a significant proportion face persistent morbidity, including chronic heart failure. Recurrent pregnancies substantially increase the risk of relapse, further complicating long-term outcomes. Mortality data remain poorly defined due to the absence of robust national surveillance systems, but delayed diagnosis and limited access to specialized care likely contribute to higher fatality rates. The lack of structured follow-up programs also hinders comprehensive assessment of recovery and survival trends among Ugandan PPCM patients.

## **Discussion**

PPCM is a major cause of maternal heart failure in sub-Saharan Africa (2,3). Ugandan data are scarce, relying primarily on case series and single-center reports (6,12). Delays in diagnosis and treatment remain common due to lack of specialized cardiology services and overlap of symptoms with normal postpartum changes (11,18).

The high maternal mortality in Uganda due to cardiovascular disease may partly reflect unrecognized PPCM (10). While echocardiography is crucial for diagnosis, access remains limited outside referral hospitals (6). Moreover, awareness among frontline healthcare workers is low, contributing to underreporting (3,7).

Bromocriptine, though promising, is not widely available. There is a need for affordable medications and long-term follow-up. Emerging therapies like SGLT2 inhibitors have shown benefit in heart failure with reduced ejection fraction, but their role in PPCM in African populations is not yet defined (5,16).

## Conclusion

Postpartum cardiomyopathy in Uganda remains underdiagnosed, underreported, and undertreated. Improved awareness, routine postpartum cardiac screening for high-risk women, and access to echocardiography can enhance early detection. National guidelines and a PPCM registry are urgently needed. Further research is required to determine true incidence, evaluate therapeutic strategies, and improve maternal outcomes in Uganda.

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