

# Heart attacks during dermatomyositis: case of a young Guinean 30 years

Djibril Sylla<sup>1\*</sup>, Ibrahima Sory<sup>2</sup> Sylla<sup>2</sup>, Amadou Kaké<sup>3</sup>, Ibrahima Camara<sup>3</sup>, Abdoulaye Camara<sup>2</sup>, Fodé Amara Traoré<sup>4</sup>, Fodé Bangaly Sako<sup>4</sup>, Boh Fanta Diané<sup>5</sup>, Mariame Béavogui<sup>2</sup>, Mamadou Dadhi Baldé<sup>2</sup> and Mohamed Cissé<sup>5</sup>

\*Correspondence: [docteurdjibril@yahoo.fr](mailto:docteurdjibril@yahoo.fr)



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<sup>1</sup>Medico-surgical emergency department of Donka National Hospital, Guinea, West Africa.

<sup>2</sup>Cardiac Service of Ignace Deen National Hospital, Guinea, West Africa.

<sup>3</sup>Department of Diabetes and Metabolic Diseases at Donka National Hospital, Guinea, West Africa.

<sup>4</sup>Department of Infectious and Tropical Diseases at Donka National Hospital, Guinea, West Africa.

<sup>5</sup>Dermatology Department of Donka National Hospital, Guinea, West Africa.

## Abstract

**Summary:** The objective of this study is to describe the cardiovascular manifestations of dermatomyositis in a 30-year-old male and the therapeutic management.

**Observation:** This is Mr.T.S, 30 years old, with no particular history, admitted for chest pain, palpitations of sudden onset, dyspnea of effort, cough, physical asthenia and myalgia. Evolving for two (2) weeks without cardiovascular risk factor.

On clinical examination, reveals a tachycardia at 200 beats/minute, TA at 120/70 mmHg, rattles crackling at the two (2) pulmonary bases, there are erythematous and macular lesions on the trunk, on the elbows and on the face. The electrocardiogram shows ventricular tachycardia at 200 beats/minute.

The biological examinations show a rhabdomyolysis with CPKs elevated to 3988UI/L, ASAT=228UI, ALAT=149IU, VS at 40mm, CRP at 62.07mg/l, protein electrophoresis shows a polyclonal hyper-gamma globulinemia, protidemia to 85 g / dl., PL12-positive soluble anti-nuclear antigen antibody, anti SSA/Ro52 antibody at 0.9.

Doppler echocardiography revealed dilated hypokinetic cardiomyopathy with impaired left ventricular systolic function (FE=37%).

**Conclusion:** Dermatomyositis is a non-specific systemic organ disease, rare, cardiac manifestations must be systematically sought, it can be observed at any age and complications are numerous.

**Keywords:** Dermatomyositis, cardiac manifestations, ventricular tachycardia, CHU Conakry

## Introduction

Dermatomyositis is a chronic condition that develops most often slowly over several weeks or months, but sometimes more rapidly evolves by relapses. This disease exists everywhere in the world affecting twice as many women as men.

It can occur at any age, but appears especially in children between 5-14 years and in adults between 50-60 years. It is sometimes perfectly disabling and its complications are numerous [1,2,4].

## Case presentation

This is Mr.T.S, 30 years old, with no particular history, admitted for chest pain, palpitations of sudden onset, dyspnea of effort,

cough, physical asthenia and myalgia. Evolving for two (2) weeks without cardiovascular risk factor.

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Cardiac Doppler ultrasound revealed dilated hypokinetic cardiomyopathy with impaired left ventricular systolic function (EF=37%), coronary angiography did not show any significant lesion.

The frontal chest X-ray shows an accentuation of the bronchovascular framework with non-specific hilio-basal opacities.

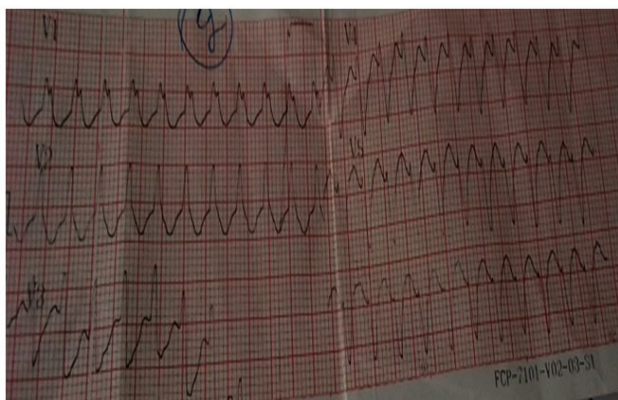
The lung TDM shows a bilateral lung prevailing fibrosis in both (2) lung bases.

The respiratory functional exploration concludes in a disorder ventilatoire mixed severe in restrictive ascendancy The electromyogram in favor of a sensitive axonal polyneuropathy of dependent length.

## Results

Given this clinical picture, the diagnosis of a dermatomyositis with cardiac manifestation was retained according to Tamioto criteria: Association of a specific cutaneous sign (Gottron sign), spontaneous myalgia, CPK elevation and existence an inflammatory syndrome.

The evolution was favorable under general corticosteroid therapy (prednisolone 1 mg/kg/day) and immunosuppressant (cyclophosphamide) and the ventricular tachycardia yielded in a few days **Figure 1**.



**Figure 1. Ventricular tachycardia observed at the ECG.** He has ventricular tachycardia tags with a wide QRS at 200 beats per minute in a 30-year-old young subject during dermatomyositis.

## Discussion

Cardiac involvement during dermatomyositis can take various forms: from simple electrical abnormalities (disturbances of rhythm or conduction) to more rare complications. Because of its asymptomatic nature, it has long been underestimated, but several studies used investigative means have shown that it actually existed in 30 to 70% of cases [3].

In our observation, we noted a ventricular tachycardia-like electrical anomaly recorded on the electrocardiogram.

Myocardial involvement was also noted as dilated cardiomyopathy with left ventricular systolic dysfunction. The latter makes it possible to detect the anomalies of the three

(3) tunics (pericardium, myocardium and endocardium) including the valves.

Mr.T.S was treated for the purpose of reducing ventricular tachycardia with Amiodarone 200mg because of 6cp single dose then 2cp/d successfully.

He also received treatment for cardiac failure secondary to dilated cardiomyopathy based on an ACE inhibitor (Coversyl 5mg/d), betablocker (Carvedilol 6.25mg/d), and an anti-aldosterone (Aldactone 25mg/d).

The evolution was favorable during his hospitalization under steroids and immunosuppressors.

## Conclusion

Dermatomyositis is a systemic disease, cardiac manifestations are diverse and underestimated, electrocardiogram and cardiac ultrasound should be systematic during the course of this systemic autoimmune disease to highlight cardiac abnormalities that are more often subclinical.

## Competing interests

The authors declare that they have no competing interests.

## Authors' contributions

Authors' Contributions	DDS	IIS	AAK	IIC	MMD
Research Concept and Design	✓	✓	✓	✓	✓
Collection and/or assembly of data	✓	✓	✓	✓	✓
Data analysis and interpretation	✓	✓	✓	✓	✓
Writing the article	✓	✓	✓	✓	✓
Critical revision of the article	✓	✓	✓	✓	✓
Final approval of article	✓	✓	✓	✓	✓
Statistical Analysis	✓	✓	✓	✓	✓

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