

The Trend of Cardiomyopathies in Albania

Anila Rexha (Shahini)

Cardiologist at Tirana Polyclinic Center Nr. 1. Tirana Health Authority, Tirana, Albania

Abstract

Cardiomyopathies are diseases of the myocardium associated with cardiac dysfunction. Types of cardiomyopathy are: dilated, hypertrophic restrictive arrhythmogenic right ventricular, and unclassified. Many conditions manifest as one type of cardiomyopathy and progress to another. For example, hypertensive heart disease can begin with a hypertrophic pattern and subsequently become a dilated cardiomyopathy. In addition, some conditions have features of more than one type of cardiomyopathy. For example, sarcoidosis can have features of restrictive and dilated cardiomyopathy at different times in the course of the disease. It has been decades that many authors, professional bodies, national medical authorities, centers of research and innovation work on prevention, and early diagnosis as two best approaches towards quality health care delivery to patients. In Albania, we still do lack on these attitudes, due to many reasons, and unfortunately, even though we do have qualified medical doctors, on the other side we lack on infrastructure, national programs, medical protocols, and especially infrastructure. Thus in Albania there is no such integral combination human resources capacity and infrastructure and hence we lack in offering best patient care adding the under financed and not well managed health care system we have. **In conclusion**, heart problems still remain one of the most causes of morbidities and mortalities and more focus should be given toward these diseases since the impact in health and wellbeing of population they have. In Albania, cardiology has gone through many positive developments, however we still are behind our western counterparts and more effort should be in place from medical professional authorities, and government bodies and institutions.

Keywords: Cardiomyopathies, prevention, early diagnosis, quality health care delivery

Introduction

Cardiomyopathies are diseases of the myocardium associated with cardiac dysfunction. Types of cardiomyopathy are: dilated, hypertrophic restrictive arrhythmogenic right ventricular, and unclassified. Many conditions manifest as one type of cardiomyopathy and progress to another. For example, hypertensive heart disease can begin with a hypertrophic pattern and subsequently become a dilated cardiomyopathy. In addition, some conditions have features of more than one type of cardiomyopathy. For example, sarcoidosis can have features of restrictive and dilated cardiomyopathy at different times in the course of the disease. Forms of cardiomyopathies illustrated in figure 1.

Cardiomyopathy often results in the heart failure syndrome, with a number of systemic manifestations.¹ On the other hand, many systemic conditions have cardiac involvement and manifest primarily as heart failure.² The cardiomyopathies represent a diverse group of conditions whose final common pathway is myocardial dysfunction. With few exceptions, histologic findings are nonspecific and include myocyte hypertrophy, cellular necrosis, and fibrosis.

There are many known causes of cardiomyopathy. Many systemic diseases have myocardial involvement, which can range from mild to severe. The most common cause of cardiomyopathy in developed countries is ischemic cardiomyopathy. In other geographic regions, such as equatorial Africa, infiltrative disease is the leading cause of cardiomyopathy.

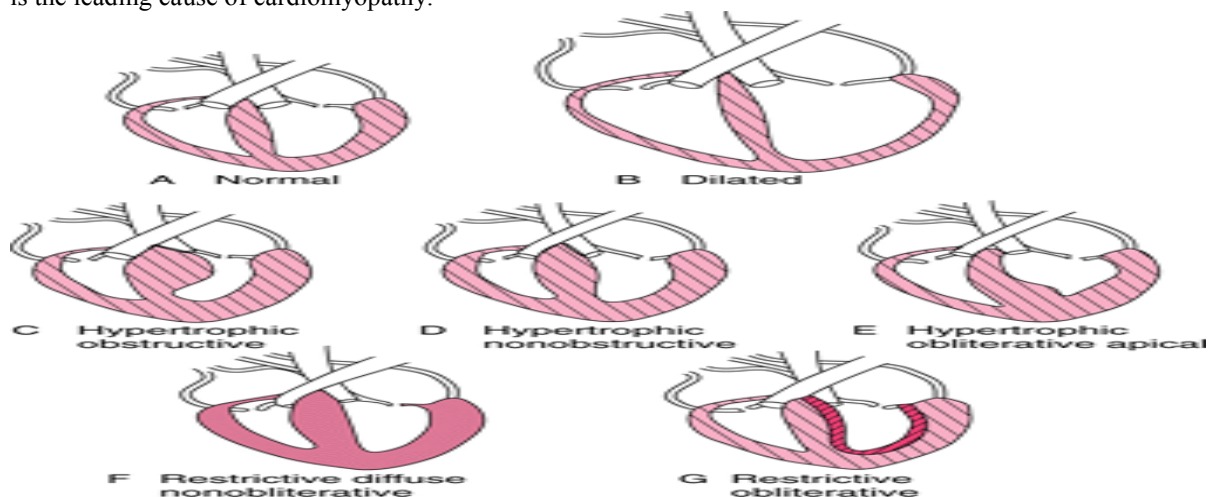
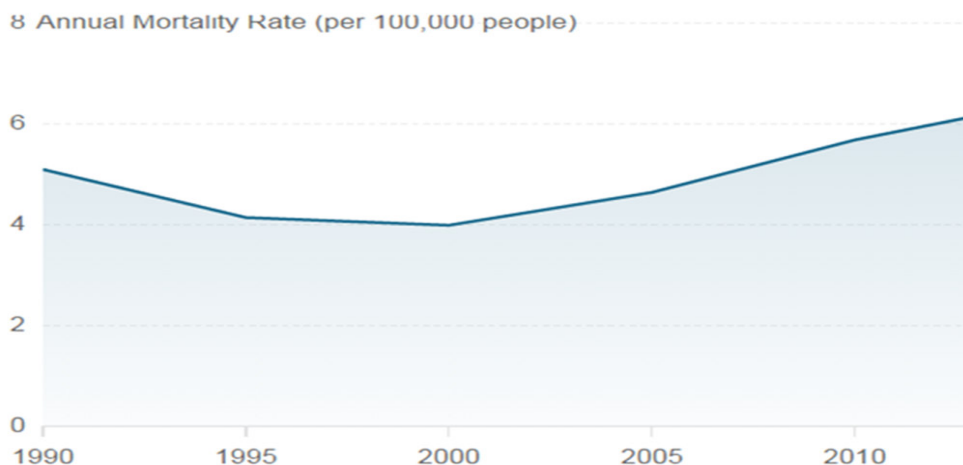


Figure 1. Forms of cardiomyopathies

In Albania according to data, The Global Burden of Disease Study 2010 (GBD 2010) a collaborative project of nearly 500 researchers in 50 countries led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, we see an increase annual rate of mortality from cardiomyopathy and myocarditis by about 20 % since in 1990, which corresponds with an average of 1 % a year.⁵ Even though we do have better infrastructure during last 2 decades, more specialized medical doctors, more investments in health care, we still are not able to reduce these numbers. Though this has been a trend overall. The trend of annual mortality rate per 100,000 people in Albania source Global-Disease-Burden.Healthgrove.com, illustrated in graphic 1.



Graphic 1. Annual mortality rate from cardiomyopathy and myocarditis in Albania in two decades (1990 – 2010). Discussion:

It has been decades that many authors, professional bodies, national medical authorities, centers of research and innovation work on prevention, and early diagnosis as two best approaches towards quality health care delivery to patients. In Albania, we still do lack on these attitudes, due to many reasons, and unfortunately, even though we do have qualified medical doctors, on the other side we lack on infrastructure, national programs, medical protocols, and especially infrastructure. Thus in Albania there is no such integral combination human resources capacity and infrastructure and hence we lack in offering best patient care adding the under financed and not well managed health care system we have.

Dilated cardiomyopathy represents the final common morphologic outcome of various biologic insults. The combination of myocyte injury and necrosis associated with myocardial fibrosis results in impaired mechanical function. Many cases are a result of direct toxicity like alcohol or mechanical insults like chronic volume overload in mitral valvular regurgitation. With myocyte failure and cytoskeletal uncoupling, the chambers become dilated. According to Laplace's law, increased diameter increases wall stress and causes further mechanical disadvantage. Thus, myocardial dysfunction can cause a vicious cycle leading to more myocardial dysfunction in a process termed adverse ventricular remodeling, which is an important therapeutic target.

Albania Health Care System in general is suffering to properly manage qualified medical doctors, and having covered all hospitals throughout the country with specialized medical doctors, such as cardiologist, cardio surgeons, or interventionist in cardiology, so we are behind with emergency transport, ongoing assessment and treatment in pre-hospital care during ambulance transportation. On the other hand we are having trouble with laboratory service, where in many city hospitals not all laboratory tests are done, and patients are sent to the only specialized center in Albania as it in Mother Teresa University Hospital Center. Such problems we face, overall these obstacles create delay in service and therefore brings up the morbidity and mortality rate. As far as my knowledge, there is no such a solid database updated periodically in Albania, and there is not a study of large population group of these diseases so we still refer western statistical data as reference.

It is difficult to assess the prevalence of cardiomyopathy accurately. Many cases go undiagnosed and patients with undiagnosed cardiomyopathy can present with sudden cardiac death. Strict diagnostic criteria are lacking. Approximately 5 million Americans have symptomatic heart failure, but it has been estimated that 50 million.^{3, 4} The estimated prevalence of idiopathic dilated cardiomyopathy is 0.4 per 1,000 of the general population.^{3, 4} However, in the future, as more causes are elucidated and more patients are found to have genetic or familial cardiomyopathy, the number of patients with idiopathic disease, a diagnosis of exclusion, will decrease.^{3, 4}

In conclusion:

Heart problems still remain one of the most causes of morbidities and mortalities and more focus should be given toward these diseases since the impact in health and wellbeing of population they have. In Albania, cardiology has gone through many positive developments, however we still are behind our western counterparts and more effort should be in place from medical professional authorities, and government bodies and institutions.

References:

1. Richardson P, McKenna W, Bristow M, et al. Report of the 1995 World Health Organization/International Society and Federation of Cardiology Task Force on the definition and classification of cardiomyopathies. *Circulation* 1996; 93:841–842.
2. van Spaendonck-Zwarts KY, van Tintelen JP, van Veldhuisen DJ, van der Werf R, Jongbloed JD, Paulus WJ, et al. Peripartum cardiomyopathy as a part of familial dilated cardiomyopathy. *Circulation*. 2010 May 25. 121(20):2169-75.
3. http://www.heart.org/HEARTORG/Conditions/More/CardiovascularConditionsofChildhood/Pediatric-Cardiomyopathies_UCM_312219_Article.
4. Griffin BP, ed. *Manual of Cardiovascular Medicine*, 4th edition. Philadelphia, PA: Lippincott Williams & Williams; 2012.
5. https://www.healthdata.org/sites/default/files/files/country_profiles/GBD/ihme_gbd_country_report_albania.pdf.