Etiological diagnostics of cardiomyopathies in the cardiology unit of the HUEH internal medicine department during the period from 8 January 2014 to 14 June 2014

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Introduction

Dilated cardiomyopathy is one of the most frequent causes of heart failure in the world (1), which is now considered as a major public health problem both in developed countries where it is predominant, especially in the elderly, over 65 years of age and in patients on long-term treatment for heart disease, and in underdeveloped countries (2,3). The diagnosis of cardiomyopathies is essentially based on para-clinical examinations, more precisely on echocardiography (3)

In Haiti, cardiovascular diseases are the leading causes of hospitalization (4,5).

The objective of this study is to present the etiological diagnosis of cardiomyopathies in the cardiology unit of the internal medicine department during the period from January 8, 2014 to June 14, 2014.

Methodology

The study was conducted on 54 patients registered in the Cardiology Unit, during the period study.

The inclusion criteria were: *the patient must be diagnosed with heart failure according to the clinical and para-clinical criteria of the unit with or without signs of atrial fibrillation*. Patients on dialysis were excluded as well as those with missing para-clinical data (echocardiography and chest radiography) since the study is based on para-clinical diagnoses, 50 patients were selected for the study.

Descriptive statistical analyses are presented in the form of tables and graphs. For the continuous variables we calculated: mean, median, standard deviation, quartiles and for the categorical variables: frequencies and percentages. *The independent t-test* was used to compare gender and age variables. The *values of P* are calculated by comparison and the value <0.05 was considered significant.

All data were collected from the records in the center's database of the cardiology unit and entered from Microsoft Excel 2010 software and processed with SPSS (IBM SPSS Statistic 20 Properties) software.

Result

The 50 patients showed a predominance for women, 31 (62%) versus 19 (38%) for men, $P=0.04$. the majority of patients, 40 (80%) were 60 years of age or younger. In this group 26 (65%) are women, which represents 83.87% of the women in the study. More than half of these 14 women (53.84%) were under 50 years of age

	Mean	Mediane	Minimum	Q1	Maximum	Q3	St. Dev.	QRI
Woman	46	51	15	27	84	62	19	35
Man	53	54	27	41	77	64	15	23

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Discussion

The mean age of the patients was 48.64 years, which seems very young compared to the data in the international literature, which in industrialized countries presents the disease as predominant among the elderly. However, an African study shows a similarity with our study, with an mean age of 42,3(6) years. 80% of our patients are under 60 years of age.

SYSTOLIC EJECTION FRACTION	N	% P	P value
Reduced (<50%)	32	69.56	
Dilated cardiomyopathies	23	50	0.0005
Undilated cardiomyopathies	13	28,26	
Retained (≥50%)	14	30,43	
Dilated cardiomyopathies	8	17,39	0.4933
Undilated cardiomyopathies	5	10,87	
Severe	13	28,26	

65.96% of all heart failure cases are dilated cardiomyopathies compared to undilated cardiomyopathies 14.89%, $p<0.0001$. These findings are similar to those in the literature, where cardiomyopathy is considered the first etiology among heart failure (1,7).

While European and American studies have shown a high prevalence of ischemic and valvular cardiomyopathies (7) and African studies of hypertensive cardiomyopathies (7) among the causes of cardiomyopathies, our study shows a predominance for idiopathic dilated cardiomyopathies, 42% of all cases considered.

There is a high prevalence of dilated peripartum cardiomyopathy, which is the second most common cause among etiologies (14%). Dr. Malebranche's last study also observed it, again in the Cardiology Unit where the prevalence was 14% (4), similar to our study as well as this study conducted in rural areas of the country where dilated peripartum cardiomyopathy was present in half of the women (5).

Conclusion

Dilated cardiomyopathy is the most important etiology among heart failure at HUEH and possibly in Haiti, considering previous studies conducted in the country(4,5,7). It is a predominant disease among people under 60 years of age and particularly among black women (80%) of childbearing age. Given the prevalence of this disease among heart failure patients and its high prevalence among hospitalization cases at HUEH, it is important to provide this institution with a quality imaging service, in order to be able to meet the demand for echocardiography and thus make diagnoses in time to avoid complications.

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