

Valvulopathy: Epidemiological and Clinical Aspects in the Cardiology Department of the Ignace Deen National Hospital CHU of Conakry

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ABSTRACT

Summary: Valvulopathies are defined as the involvement of heart valves: aortic, pulmonary, mitral and tricuspid leading, depending on the type of lesion, to insufficiency or narrowing.

Material and Methods: Descriptive prospective study from October 1st, 2015 to March 31st, 2016, concerning valvulopathic patients confirmed by cardiac Doppler echo hospitalized in the cardiology department of the national hospital IGNACE DEEN CHU of Conakry. Sociodemographic, diagnostic and evolutionary variables were studied.

Results: 210 patients were hospitalized in the cardiac department IGNACE DEEN CHU Conakry. Of these, 75 or 36% were valvulopathic. There was a male predominance with an H / F sex ratio of 1.02. The average age was 37.5 years with extremes ranging from 8 to 87 years old. The predominant urban population was 41.33%. Housewives and students are the most concerned, 33.33% and 25.33% respectively. The most frequent reason for consultation was dyspnea with 92% and the majority of hospitalized patients were in stage III NYHA, ie 62.66%. Mitral insufficiency was the most observed valvulopathy with 30.66%. The main etiologies were rheumatic and dystrophic respectively 52% and 30.66%. The most common complications were 90.66% heart failure and 68% of heart rhythm disorders. The hospital mortality related to valvulopathies was 7%.

Conclusion: Valvulopathies are frequent in the cardiology department of the national hospital IGNACE DEEN CHU Conakry. Mitral insufficiency is the most commonly observed and heart failure is the main mode of disclosure.

Keywords

Valvulopathies, Epidemiology, Clinical, Cardiology IGNACE DEEN.

Introduction

Valvulopathies are defined as the involvement of heart valves: aortic, pulmonary, mitral and tricuspid leading, depending on the type of lesion, to insufficiency or narrowing [1]. Valvular insufficiency is characterized by a failure of coalescence of the valves, with the consequence of a reflux of blood in the cavity that he should have normally left. The narrowing or stenosis is characterized by a decrease in the size of the orifices resulting in a stasis upstream of the obstacle [1]. Valvular heart diseases remain frequent, but

the distribution of their causes has changed for 30 years because of improved health conditions that have reduced the incidence of rheumatic fever and increased life expectancy [2]. However, it is still a major health problem [1]. Their prevalence is estimated at 2.5% in the United States in 2009 [3]. In Europe, the aging of the population favors the emergence of dystrophic and degenerative valvulopathies while the frequency of rheumatic valvulopathies gradually decreases. [4] In Lome in Africa the hospital frequency of valvulopathies is 4.45% in 2015 [5]. In Guinea in 2010 the frequency of valvulopathies was 19.09% [6]. A study carried out in 2008 showed that valvulopathies constituted the third leading cause of hospitalization, i.e, 11.68% after arterial hypertension and dilated cardiomyopathy in the cardiology department of Ignace

Deen Hospital [6]. medical imaging, especially the Doppler echo, allows us to bring more precision to the anatomical and functional diagnosis of valvulopathies. The results of surgery have improved considerably thanks to an earlier diagnosis and the wider use of reconstructive surgery, hence the importance of early diagnosis of these valvulopathies in our environments [5]. The high frequency of valvulopathies, the unpredictable natural evolution leading to complications on the one hand and the current impossibility of surgical treatment in Guinea give this nosological entity a worrying character motivating the choice of theme whose objectives were to determine the frequency of valvulopathies, describe the clinical aspect, identify etiologies and to identify complications observed in the cardiac department of the Ignace Deen National Hospital.

Material and Methods

This was a prospective, cross-sectional descriptive study with a duration of 06 months ranging from October 1, 2015 to March 31, 2016, which involved 75 valvulopathic patients. All patients with cardiac Doppler-confirmed valvulopathy who agreed to participate in the study were included. Not included in this study was any patient with no valvulopathy. The variables were epidemiological clinical and paraclinical. the data collected was analyzed by Epi info 7, Word and Excel 2007.

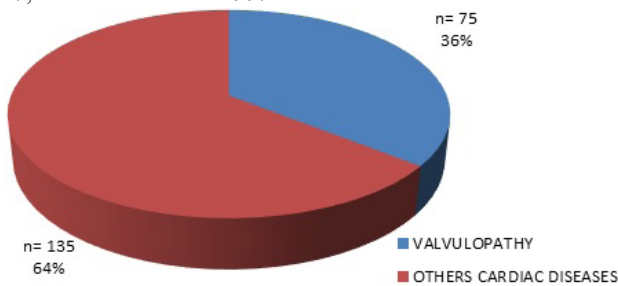
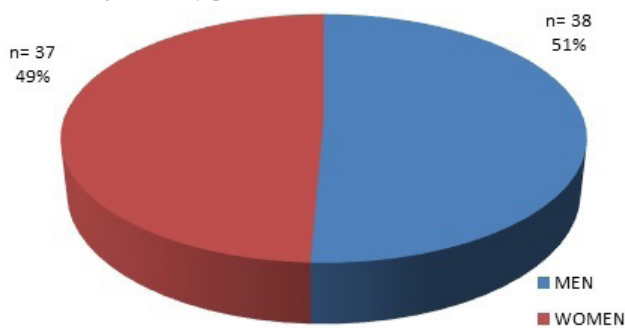


Figure 1: Frequency of valvulopathies compared to all hospitalized heart diseases during the study period.



SEX RATIO = 1.02 M / W. **Figure 2:** Distribution of patients by gender.

Age groups (years)	Number of cases	%
6-15 years	8	10,66
16-25 years	11	14,66
26-35 years	8	10,66
36-45 years	8	10,66
46-55 years	9	12
56-65 years	11	14,66
66-75 years	10	13,33

76 and more	10	13,33
Total	75	100

Table 1: Distribution of patients by age group. Extreme age: 8 and 87 years; Mean age = 47.5 years.

Profession	Number of cases	%
Household	25	33,33
Pupil / Student	19	25,33
Trader	10	13,33
Farmer	8	10,66
Official	6	8
Other	7	9,32
Total	75	100

Other

Heaters 2 2,66%

Workers 5 6,66%

Table 2: Distribution of patients according to socio-occupational categories.

Functional signs	Number of cases	%
Palpitations	60	80
Dyspnea	69	92
Cough	44	58,66
Hemoptysis	3	4
Syncope	1	1,33
Precordial	10	13,33
Other	30	40

Other

Headaches 9 12

Physical asthenia 15 20

Dizziness 3 4

Vomiting 3 4

Table 3: Frequency of patients by functional signs.

NYHA Stadium	Number of cases	%
I	7	9,33
II	8	10,66
III	47	62,66
IV	13	17,33
Total	75	100
Total	75	100

Table 4: Distribution of Patients by NYHA Functional Stages.

Valvulopathy	Number of cases	%
Mitral insufficiency	23	30,66
Mitral Disease	2	2,66
Aortic insufficiency	2	2,66
Tricuspid Insufficiency	1	1,33
Mitroaortic attack	22	29,33
Mitrotricuspidus involvement	13	17,33
Mitroaortotricuspidus involvement	12	16
Total	75	100

Table 5: Distribution of patients according to the anatomoclinical forms of valvulopathies on Doppler ultrasound during the study period.

Etiologies	Number of cases	%
Acute articular rheumatism	39	52
Dystrophic	23	30,66
Ischemic	3	4
Functional	8	10,66
Endocarditis	2	2,66
Total	75	100

Table 6: Distribution of patients by etiology of valvulopathies.

Complications	Number of cases	%
Heart failure	68	90,66
Heart rhythm disorder	51	68
Conduction disorder	4	5,33
Endocarditis	3	4
Thromboembolism	11	14,66

Table 7: Distribution of patients according to the complications.

Evolution	Nombre de cas	%
Improved	70	93
Deceased	5	7
Total	75	100

Table 8: Breakdown of patients by evolution.

Discussions

During the period of our study 210 patients were hospitalized in the cardiology department of the national hospital IGNACE DEEN 75 cases of valvulopathies is a frequency of 36%. Our result is superior to that of CLEMENT D [7], in his doctoral thesis in Guinea on valvulopathies at the IGNACE DEEN cardiology department in 2010 which reported a frequency of 19.09%.

In our study, the mean age of patients was 47.5 years with extremes of 8 and 87 years. The most affected age groups were 16-25 years old and 56-65 years old, with 11 cases each, or 14.67%. Our study found that young and elderly patients were the most affected. The high frequency of these two age groups is explained by the fact that the young subject is more exposed to RAA in our tropical environments on the one hand and on the other hand age over 50 is a cardiovascular risk factor. The male sex was slightly predominant with 38 cases or 50.67% against 37 female cases or 49.33% with a sex ratio H / F at 1.02. Our result is similar to that found by TOURE S. et al in Guinea [10] who also had a male predominance in their study. In our series the housewives were the most affected with 25 cases or 33.33% followed by students with 19 cases or 25.33%. Our result is contrary to the one found by F. DABO [6] in 2008 in Guinea, which reported 40.92% of students as the most affected socio-professional stratum in their series. This disparity is explained by the fact that housewives make up a good proportion of low socioeconomic and low education levels in our tropical country.

From a clinical point of view, NYHA stage III heart failure with 47 cases 62.66% was the most dominant followed by stage IV NYHA with 13 cases or 17.33%. Our result is similar to that found by CLEMENT D in 2010 in Guinea who reported in his doctoral dissertation 75% for stage III NYHA and 21.5% for stage IV NYHA [7]. Two facts can explain the predominance of these two stages is witnessing the late consultation of structures specialized cardiac patients on the one hand, and on the other hand the small capacity of the cardiology IV NYHA. The most frequent reason for consultation was dyspnea 92%. Our result is contrary to that found by YAYEHD K. et al (8) in Lomé in 2012 who reported precordialgia as the most frequent reason for consultation. High frequency of dyspnea as a reason for consultation in our series could be explained by the fact that more than half of our hospitalized patients were all in IC. In our study mitral valve involvement was the most common. It was most often an MI with 23 cases or 30.66%. Our result is similar to that found by A. BALAKA et al who reported in their study in 2015 in Lomé the IM as the achievement valvular most common [5], unlike that found by Lung B. and all who found the aortic valvulopathies as the most common valvular involvement in a study in 2003 in Europe [9]. Among the etiologies, RAA was the most frequent with 39 cases or 52% followed by dystrophic causes with 23 cases or 30.66%. Our result is similar to that found by F. DABO [6] in 2008 in Guinea, but contrary to that found by Lung B. et al who reported in their 2003 study in Europe a predominance of dystrophic causes followed by rheumatic causes respectively of 61.05% and 21.63% [9].

This predominant rheumatic etiology This may be explained by the fact that, in most developing countries, heart valve damage caused by RAA is currently one of the earliest diseases of children and young adults [10]. In our series, the most common complication was heart failure with 68 cases or 90.66% followed by cardiac arrhythmias in 68% of cases. Our result is consistent with that found by TOURE S. et al. who reported in their study in Guinea that CI was the most common complication 85.39% [10], but contrary to that found by YAYEHD K. and all in 2012 in Lomé who had reported CRT as the main complication of valvulopathies 46.7% [8]. The prevalence of CI as a complication in our study is in direct line with the literature which states that valvulopathies are one of the leading causes of heart failure. Heart failure remains the most common complication studies in Black Africa where cardiac surgery is often non-existent. At the end of our study, 5 patients had died or 7%. Our result is lower than that reported by Coulibaly Y. et al who found 8.7% in their study. in Mali in 2005 [11].

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