

Clinic Evaluation of Heart Failure of Old People in the Department of Internal Medicine of Point G University Hospital from 2008 to 2012

Assétou Soukho Kaya¹, Abdel Kader Traoré¹, Djibril Sy¹, Djenebou Traoré¹, Ilo Diall², Youssouf Fofana³, Ibahima Amadou Dembélé¹, Boua Daoud Camara⁴, Mamadou Saliou¹, Karim Dao¹, Mamadou Cissoko¹, Kaly Kéïta¹, Barry Boubacar Sangaré¹, Mamadou Mallé¹, Alassane A. Doumbia¹, Hadiza A. Kailou¹, Mamadou Dembélé¹, Hamar Alassane Traoré¹

¹Department of Internal Medicine, Point G University Hospital, Bamako, Mali

²Department of Cardiac Disease, Point G University Hospital, Bamako, Mali

³Department of Internal Medicine of Children and Mothers, Le Luxembourg University Hospital, Bamako, Mali

⁴Internal Medicine Service, Nianankoro Fomba Hospital, Ségou, Mali

Email: assetousouko@yahoo.fr, traoreak@gmail.com, hassiramadydembele@yahoo.fr, traorhamaralassane@yahoo.fr

How to cite this paper: Kaya, A.S., Traoré, A.K., Sy, D., Traoré, D., Diall, I., Fofana, Y., Dembélé, I.A., Camara, B.D., Saliou, M., Dao, K., Cissoko, M., Kéïta, K., Sangaré, B.B., Mallé, M., Doumbia, A.A., Kailou, H.A., Dembélé, M. and Traoré, H.A. (2019) Clinic Evaluation of Heart Failure of Old People in the Department of Internal Medicine of Point G University Hospital from 2008 to 2012. *Open Journal of Internal Medicine*, 9, 83-88.

<https://doi.org/10.4236/ojim.2019.93012>

Received: June 26, 2019

Accepted: September 2, 2019

Published: September 5, 2019

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Justification: Heart failure (HF) is the evolutionary end of all cardiac diseases. Given the aging population, the rate of incidence is increasing among the elderly. **Objectives:** The study aims to determine the prevalence of heart failure in the elderly; to describe the clinical aspects; describe etiologies; describe the therapeutic aspects; and describe the evolution of heart failure among the elderly. **Method:** This was a retrospective study over five years on the operating records of patients hospitalized in the internal medicine department of Hospital Point G. **Result:** The study included records of 22 elderly patients who were with heart failure of a total of 595 patients hospitalized from 1st January 2008 to 31st December 2012. The prevalence rate was 3.7%, and the average age was 67 ± 7.79 years. The sex ratio was equal to 1. HTA accounted for the cardiovascular risk factors in 77.3%. 72.7% of patients had the symptom of dyspnea and 95.5% of patients had the symptom of IMO. According to the cardiac ultrasound, dilation of the OG represented 68.2% of cases, followed by impaired LVEF (63.6%). The etiologies of IC were represented by dilated cardiomyopathy (95.5%), followed by 13.6% in cardiomyopathy. Drug treatment was dominated by the use of diuretics, ACE inhibitors and sodium diet respectively 95.5%; 81.8% and 45.5% of cases. The clinical outcome was favorable in 73%. We recorded four (4) cases of death, which accounted for 18% of patients.

Keywords

Heart Failure, Clinic, Etiology, Therapeutics, The Elder

1. Introduction

Heart failure usually with complex syndrome, is the final result of varies of advanced heart diseases.

In all situations, heart failure cannot maintain the cardiac output which body's metabolism needs. Heart failure is divided into left ventricular heart-failure, right ventricular heart-failure and whole heart failure [1] by the cavities arriving in specially or mainly.

Given the aging population, the prevalence is constantly increasing among the elderly [2].

In France, the number of patients of heart failure was predicted to be 500,000 in 1991, with 120,000 new cases every year. 2/3 of them are patients over 75 years old [3].

Including 5000 patients who had been followed up for more than 40 years, the study of Framingham published in 1999 is the most important research in this domain. In this study, the prevalence of heart failure increased as the age increased, from 1% of 50 to 59 years of age to 9% of 80-year-old people. The average of patients hospitalized due to heart failure in France was 76 years [4].

Heart failure was one of main causes of death and urgent hospitalization for people more than 65 years [5].

The prevalence of diastolic heart failure or remained ejection heart failure of people more than 75 years was 49.6% [6] [7].

In Mali, in the department of cardiology:

- According to the survey of Menta, the average age of patients with cardiovascular diseases was 68.8 ± 0.3 years old, and HTA as the main dangerous factor, accounted for 44%, while tabagism accounted for only 2% [8].
- N'Guissan found the prevalence of heart failure with arrhythmia was 22.29% [1].

In the department of internal medicine of Point G University regional central hospital, up to now, there wasn't a study for heart failure of the elderly who were objects of this work. The Target was to determine the prevalence of heart failure among the elderly and describe from the perspective of aspects of clinic, etiology, therapeutics, and evaluation of heart failure among the elderly.

2. Patients and Method

We carried a retrospective and descriptive in the department of internal medicine of Point G University central hospital, using cases of old patients, both male and female, from de data base of hospitalized from 1st January 2008 to 31st December 2012.

All patients over 60 years during the time of survey who respect our criteria have been included after the acceptance of the ethic comity of the hospital.

The criteria of inclusion didn't include patients less than 60 years old with no heart failure, patients couldn't be tested by heart ultrasound and patients more than 60 years old without heart failure.

We collected detailed data of cases of all patients more than 60 years old, then entered these data into the personal survey sheet. For all patients, we collected variables of social demography (age, sex, ethnic group, profession and residence) shown in **Table 1**, clinical variables (general situation, weight and height, IMC calculation, dyspnea, pectoralgia, cough, palpitate, stress liver pain, lung spasm) that are shown in **Table 2** and assistant clinical variables (echocardiogram, chest X-ray, electrocardiogram, glucose, serum creatinine and ionogram of whole blood).

The entry and analysis of data were done on Épi info 3.5.3 software.

Table 1. Distribution by social demographic information (n = 595).

Age	Frequency	Pourcentage
60 - 70 Years Old	410	68.91
<70 Years Old	185	31.09
Average of Age	67 ± 7.79 Years Old	
Male	244	41.01
Female	351	58.99
Sex-Ratio	0.78	
Residence	Frequency	Pourcentage
Urban Area		65%
Rural Area		35%

Table 2. Distribution by clinical information (n = 595).

Clinical Variables	Frequency	Pourcentage
Orthopnea	297	49.9
Obesity	203	34.1
Hypertension	460	77.3
Pectoralgia	333	56
Cough	522	87.8
Tachycardia	324	54.5
Hepatomegaly	324	54.5
swelling of jugular vein	324	54.5
Oedema	568	95.5

3. Results

From January 2008 to December 2012, 22 old patients matched inclusion criteria were recorded among 595 old patients with heart failure hospitalized in the department of internal medicine, and the frequency was 3.6%.

The average age was 67 ± 7.79 years old. Housewives represented for 40.9% of these cases.

Patients having HTA accounted for 77.3%. Tabagism was the dangerous factor of cardiovascular accounting for 22.7%. Orthopnea was the sign of functional disorder, accounting for 49.9%. Edema of lower extremity is the physical sign, accounting for 95.5%, followed by hepatomegaly, tachycardia and swelling of jugular vein, each accounting for 54.5%.

In the echocardiogram, 68.2% of patients had distention of the left atrium, followed by the change of ejection fraction, 63.6%. The causes of heart failure included dilated cardiomyopathy, accounting for 95.5%, followed by heart disease of hyperthyroidism (13.6%). The ray X was not normal for 96.3% of patients. No patient was diabetic and we did not find any renal deficiency.

Drug treatment was dominated by the use of diuretics, ACE inhibitors and sodium diet respectively 95.5%; 81.8% and 45.5% of cases.

The clinical outcome was favorable in 73%. We recorded four (4) cases of death, which accounted for 18% of patients.

4. Discussion

Has all retrospective screening the limit of this study is that, the inclusion criteria do not cover all the patients because of the limitation of information. In our survey, HTA was the most common dangerous factor of cardiovascular, accounting for 77.3%. This result was lower than result of survey of Menta's survey (44%) [8] and result of survey of N'Guissan's survey (37.8%) [1].

Among patients in our survey, patients having tabagism accounted for 22.7%. This result was lower than result of survey of Menta, in which patients having tabagism accounted for 2% [8].

The main sign of functional disorder was dyspnea, accounting for 72.7% of these cases. Menta got a similar result-76% [8].

Our result was lower than the result of survey of René which found dyspnea accounting for 91% [9].

Cough accounted for 40.9% of cases in our survey. René found cough accounting for 77.7% [9].

It could be explained by the large number of samples, and so did our methods (ages of our patients were more than or equal to 60 years averagely).

Edema of lower extremity was the physical sign in 95.5% of our patients. René [9] found edema of lower extremity accounting for 77.1%.

In cases of our survey, hepatomegaly accounted for 54.5%. This result was lower than the result of René [9] whose result was 74.7%.

We have noticed that cardiomegaly had a large proportion in cases of our survey, accounting for 54.5%.

Results of René [9], Ikama *et al.* [2] and Menta [8]'s survey about cardiomegaly were 92.6%, 97.3% and 77%. The reason why percentage of results of these investigators was higher might be their large quantity of samples.

Electric left ventricular hypertrophia accounted for 31.8% among cases of our survey. This result was similar with result of survey of René [9] (37.2%), but dissimilar against N'Guissan [1] (86.4%).

Dilatation of left atrial often appeared in cases, accounting for 68.2%. This result was same with result of N'Guissan [1] which recorded the proportion of dilatation of left atrial as 62.1%. However, proportion of dilation of left atrial recorded by René [9] was on the low side, 33.6%.

The change of ejection fraction was the abnormal phenomena tested by ultrasonic, accounting for 63.6% of cases, while 36.4% of patients of cases having a good contractile function. This result was similar with N'Guissan [1], the ejection fraction having changed accounting for 72.9%, while not changed accounting for 27.1%. But in the survey of René [9], patients whose ejection fraction didn't change were more than half.

Cause of heart failure was mainly dilated cardiomyopathy, accounting for 95.5%. Considering 77.3% of patients having past histories of HTA, cardiomyopathy was possible to come from hypertension.

This result was higher than result of N'Guissan, the latter finding myocardopathy accounting for 37.8%, and primordial dilated cardiomyopathy [1] accounting for 32.5%.

Among patients in our survey, people having heart disease of hyperthyroidation accounted for 13.6%. René [9] recorded that heart disease of hyperthyroidation had a small proportion, 1.2%.

In addition, study of N'Guissan [1] and Menta [8] didn't have heart failure of hyperthyroidation. This could be explained by place of study, and our study was carried out in the department of internal medicine.

There was no record of valvular heart disease or record of ischemic heart disease.

Using molecule mainly was diuretic, accounting for 95.6, IEC accounting for 81.8%, followed closely by diet of low sodium, accounting for 45.5%.

Our result was similar with René, who recorded diuretic (94%) and IEC [9] (91.6%) in order. But Menta [8] pointed out in his study that the usage of IEC was little, accounting for 18.5%.

On the one hand the reason of this difference might be that the survey of Menta [8] had been a long time (1999), on the other hand it might become the change of loads for heart failure.

Evolution of 73% of patients was favorable. This result was similar with René [9], in which favorable change was 81.3%.

We have recorded the death rate of 18%. This also existed in the result of sur-

vey of Menta I A [8], in which the death rate was 15%, in the survey of René [9] 10.3%, and in the review of Wernard [10] 13.8%.

5. Conclusions

Heart failure often appeared among the elderly and had a serious prognosis. Because of the find in later stage and frequency of appearance of related pathology, it was difficult to diagnose positively.

Regular follow-up and good education are for a better treatment, and well responding to the treatment can guarantee the elderly to get a good life quality.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] N'uissan, N. (2009) Insuffisance cardiaque et trouble du rythme supraventriculaire chez le sujet âgé. Faculté de Médecine de Pharmacie et d'Odonto-Stomatologie. Thèse, Med, Bamako, No. 588.
- [2] Ikama, M.S., Kimbally-Kaky, G., Gombet, T., Ellenga-Mbolla, B.F., Dilou-Bassemouka, L., Mongo-Ngamani, S., Ekoba, J. and Nkoua, J.L. (2008) Insuffisance cardiaque du sujet âgé à Brazzaville: Aspects cliniques, étiologiques, et évolutifs. *Med Trop*, 68, 257-260.
- [3] Jondeau, G. (2006) Insuffisance cardiaque et cardiomyopathies. *Arch Mal CCEUR Vaiss*, 2, 3-79.
- [4] Rywik, S.L. (2000) Insuffisance cardiaque du sujet âgé: Etiologies. *European Journal of Heart Failure*, 2, 413-421. [https://doi.org/10.1016/S1388-9842\(00\)00106-9](https://doi.org/10.1016/S1388-9842(00)00106-9)
- [5] Rodriguez, D. (2008) Insuffisance Cardiaque. *Med Mal Metab*, 2, S97-S99.
- [6] Lye, M. (2000) Insuffisance Cardiaque Diastolique. *European Journal of Heart Failure*, 2, 133-136. [https://doi.org/10.1016/S1388-9842\(00\)00068-4](https://doi.org/10.1016/S1388-9842(00)00068-4)
- [7] Larsson, B.L. (2010) Insuffisance Cardiaque Diastolique. *Scandinavian Journal of Primary Health Care*, 28, 172-178.
- [8] Menta, I.A. (1999) Pathologie cardiovasculaire du sujet âgé: Socio-démographie, épidémiologie, clinique, traitement et évolution. Faculté de Médecine et d'Odonto-Stomatologie Thèse, Med, Bamako, No. 01.
- [9] Dakouo, M.R. (2010) Insuffisance cardiaque du sujet âgé dans le service de cardiologie A du CHU du Point G: Epidémiologie, clinique, thérapeutique et évolution. Faculté de Médecine et d'Odonto-Stomatologie Thèse, Med, Bamako, No. 498.
- [10] Gavid, W. (2008) Insuffisance cardiaque: Les particularites chez la personne agee. *Rev Prat Medecine Generale*, 22, 719-720..