International Journal Dental and Medical Sciences Research
Volume 5, Issue 2, Mar - Apr 2023 pp 58-61 www.ijdmsrjournal.com ISSN: 2582-6018

Causes and Prediction of Re-Admissions of Heart Failure Patients in Patients Who Admitted To Ggh, Kakinada.

1)dr.p. Vardhan kumar reddy, 2) dr. Veera balaji joga m.d.
(final year postgraduate, general medicine, rangaraya medical college,kakinada)
(assistant professor,general medicine,rangaraya medical college,kakinada)

Date of Submission: 01-03-2023 Date of Acceptance: 10-03-2023

I. BACKGROUND

Heart failure (HF) is a major cause of morbidity and mortality worldwide. Heart failure (HF) is a common final pathway for most chronic cardiovascular diseases including hypertension, coronary artery disease, and valvular heart disease.Heart failure (HF) is defined as a complex clinical syndrome that can result from any structural or functional cardiac disorder that impairs the ability of the ventricle to fill or eject blood. It is characterized by a significant clinical impact for high morbidity and mortality rates, impaired quality of life and relevant demand for health care systems. Approximately,50 to 75 percent of patients admitted with acute heart failure had a prior history of heart failure.Despite improvements in Guidelines based medical therapy (GDMT), admission rates following heart failure hospitalisation remain high. Individually,several heart failure indices do predict higher event rates.

II. MATERIALS AND METHODS

Patients admitted for heart failure previously in Government general hospital, Kakinada and now readmitted with history of heart failure symptoms within the 3 months of discharge are included in the study. Total sample size is 98. The study period is November 2021 – MARCH 2022. On admission 10cc blood is withdrawn from the patient after obtaining the informed consent either from the patient or the relatives. The sample is tested for complete blood count, renal function tests, liver function tests and serum electrolytes. As this study is both prospective and retrospective, the lab parameters and clinical parameters of patients previously admitted are obtained from medical records department, Government general hospital, Kakinada.

STUDY DESIGN:
Prospective and Retrospective observational study
SAMPLE SIZE:
98 PATIENTS
DATA COLLECTION AND METHODS:
Patients are subjected to history questioning, clinical examinations, and blood sampling. Retrospective samples are obtained from case sheet records at medical records department.

INCLUSION CRITERIA:
- Ageabove15years.
- Sex-both genders.
- Patients presenting with symptoms of heart failure according to
- Framingham criteria.
- Patients willing to give written informed consent.

EXCLUSION CRITERIA:
1. Patient age less than 15 years2. Patient who was previously admitted for symptoms of heart failure and now admitted for another cause.

III. OBSERVATIONS

AGE DISTRIBUTION

Age	patients	percentage
15-29	4	4%
30-44	19	19.3%
45-55	44	44.8 %
>55	31	31.6%

International Journal Dental and Medical Sciences Research
Volume 5, Issue 2, Mar - Apr 2023 pp 58-61 www.ijdmsrjournal.com ISSN: 2582-6018

SEX DISTRIBUTION

sex	patients	percentage
male	**58**	**59.1%**
female	**40**	**40.9%**

DURATION OF HOSPITAL STAY

days	patients	percentage
1-4 days	31	31.63%
5-9 days	45	45.91%
>10 days	22	22.4 %

Showing Underlying Cause for heart failure in study population

UNDERLYING CAUSE	NO OF PATIENTS	PERCENTAGE
1 HYPERTENSIVE HEART DISEASE	8	8
2 ISCHEMIC HEART DISEASE	35	35.7
3 OTHER CARDIOMYOPATHIES	11	11.2
4 VALVULAR HEART DISEASES	11	11.2
5. ATRIAL FIBRILLATION	1	1
1 ,2	17	17.3
1,3	1	1
1,4	1	1
2,4	3	3
4,5	11	11.2

Showing comorbid illness in study population

COMORBID ILLNESS	NO OF PATIENTS	PERCENTAGE
1 CHRONIC KIDNEY DISEASE	7	7.1
2 CHRONIC LUNG DISEASE	3	3
3 DIABETES MELLITUS	26	26.5
4 ANEMIA	13	13.2
5 DRUG OR ALCOHOL ABUSE	6	6.1

International Journal Dental and Medical Sciences Research
Volume 5, Issue 2, Mar - Apr 2023 pp 58-61 www.ijdmsrjournal.com ISSN: 2582-6018

1,2	1	1
1,3	3	3
1,4,5	1	1
1,5	1	1
3,4	1	1

Showing precipitating Factor in study population

PRECIPITATING FACTOR	NO OF PATIENTS
1 INCOMPLIANCE	15
2 UNCONTROLLED HYPERTENSION	2
3 CARDIAC ARRYTHMIAS	5
4 INADEQUATE THERAPY	2
5 PULMONARY INFECTION	1
6 EMOTIONAL STRESS	2
7 FLUID OVERLOAD	12
8 MYOCARDIAL INFARCTION	5
1,2	2
1,6	1
1,7	5
1,7,8	1
1,8	2
3,6	1
4,7	1

IV. DISCUSSION

Our study showed that the heart failure is occurring in relatively younger age group than in other studies conducted in various hospitals.Our study showed 60% of males and 40% females in medical wards.Common presenting symptom is dyspnoea on exertion as most of our patients belong to lower socioeconomic status, so they depend on their physical abilities to fulfil their daily needs. Orthopnea is the equivalent symptom presenting during admission.73.4% of patients of our study population had basal crepitations and few had polyphonic wheeze (cardiac asthma).Most of the patients had left ventricular systolic dysfunction, which was severe, 15% had mitral stenosis either alone or associated with other valvular involvement. 12% had left ventricular diastolic dysfunction with preserved left ventricular systolic function.Each patientwas enquired about the nature of the disease and the future outcomes by brief questionnaire during the study. The observation wasthat the view about disease progression and the diuretic dose adjustment according to congestive symptoms are low in about 40% of the patients.Most of the patients had left ventricular systolic dysfunction, which was severe,

15% had mitral stenosis either alone or associated with other valvular involvement. 12% had left ventricular diastolic dysfunction with preserved left ventricular systolic function.Each patients were enquired about the nature of the disease and the future outcomes by brief questionnaire during the study. The observation was that the view about disease progression and the diuretic dose adjustment according to congestive symptoms are low in about 40% of the patients.As the Indian food preparation contains high amount of sodium, the sodium restriction for these patients were also difficult.Most of the patients are unaware of disease nature and progression.

V. CONCLUSION

1.Readmissions are common in the middle age group patients.
2.Certain diseases like rheumatic valvular heart diseases are amenable to surgical correction which can prevent the heart failure.
3.Drugs that decrease the disease progression are not used appropriately as there is lack of compliance and awareness
4.Diabetes mellitus and heart failure commonly are associated in many patients
5. Severe left ventricular systolic dysfunction and diastolic dysfunction is the most common echocardiogram finding associated with heart failure.
Following Guideline directed medical therapy (GDMT), treating underlying diseases and comorbidities will drastically reduce readmissions in heart failure.

REFERENCES

[1]. Kannel WB: Incidence and epidemiology of heart failure. Heart Fail Rev 2000; 5:167.
[2]. McLaren DP, Jones R, Plotnik R, et al. Prior hospital admission predicts thirty-day hospital readmission for heart failure patients. Cardiol J. 2016;23(2):155–162. doi:10.5603/CJ. a2016.000
[3]. Dunlay SM, et al. Hospitalizations after heart failure diagnosis. a community perspective. J Am Coll Cardiol. 2009; 54:1695–1700
[4]. Bhatia RS, et al. Outcomes in patients with heart failure treated in hospitals with varying admission rates: population-based cohort study. BMJ Qual Saf. 2014; 23:981–988