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"STUDY OF CLINICAL PROFILE OF PATIENTS WITH ATRIAL FIBRILLATION"

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ABSTRACT:

BACKGROUND: Atrial Fibrillation is the most commonly encountered irregular heart beat (arrhythmia) in our population, and it is the disordered supraventricular (atria) event characterized by irregular heart rhythm. Therefore, the role of clinical profile in atrial fibrillation patient needs to be further discussed. In order to analysis the above issue, our study investigated the association between stroke patient and their clinical profile.

METHOD: The study included 50 patient admitted in the Iccu and fulfilling the inclusion criteria. The study consists of history taking, clinical examination and biochemical assay and radiological examination. Study subjects were selected after obtaining consent. Patient were managed according to standard guidlines.

RESULTS: Most common symptom in our study was palpitation. Most common etiology was Coronary heart disease. Most common Class of drugs used in treatment were B-blockers, followed by anti-arrhythmic. Heart failure was the commonest complication seen, followed by Cardiogenic shock. Mortality was observed in patients with complications, while no mortality was observed in uncomplicated patients.

Conclusion: Male patients were more common than female patients. Most common symptom in our study was palpitation. Most common etiology was more commonly seen in younger age group. Valvular etioligy was more commonly seen in younger age group. Most common valvular abnormality was mitral stenosis. Paroxysmal AF was the most common type of AF. Paroxysmal AF was mostly seen in patient with new onset AF while persitent was seen in old onset Most common class of drug used in treatment were B-blockers, followed by anti arrythmic. Heart failure was the commonest complication seen, followed by cardiogenic shock

Keywords: ATRIAL FIBRILLATION, PATIENTS, CLINICAL PROFILE

INTRODUCTION

Atrial Fibrillation is the most commonly encountered irregular heart beat (arrhythmia) in our population, and it is the disordered supraventricular (atria) event characterized by irregular heart rhythm, there by altered atrial electrical and mechanical function will occur, it will lead to significant economic burden to the society by causing morbidity and mortality. Its prevalence though less than 1% in general population below 65 years old, its incidence and prevalence are in increasing trend1.

Male sex is the risk factor compared to female sex and moreover its incidence and prevalence more in males than females, females develop atria fibrillation later in life when compared to male sex. White people are more affected than Black People.

Most of the patients are initially asymptomatic and due course they will land up with lot of complications, limiting their day-to-day activities.

Because of abnormality in atrial activity there is abnormal atrial systolic event leading to ventricular dysfunction with reduced output, formation of thrombus in atrium leading to cerebrovascular accident and thromboembolic events. The pathophysiology of atrial fibrillation remains in controversy, but lots of theories have been proposed like "mother rotor theory", "multiple wave let theory".

So many diseases that are contributing to the development of atrial fibrillation. Among them Rheumatic valvular heart disease, Systemic hypertension, ischemic heart disease is very important. Smoking and alcohol consumption are risk factors adding to the development of this dysrhythmias.

There are different types of atrial fibrillation causes can be defined, but in undetermined or Lone AF no cause can be found.

Different diseases contributing to atrial fibrillation will appear at different ages, atrial fibrillation appearing because of valvular heart disease appears earlier than other diseases contributing to the development of atrial fibrillation.

ECG Shows irregular rhythm with normal or rapid rate, absent P waves, normal QRS Complex.

MATERIAL AND MATHOD:

The study was conducted in teaching institute from 2020 to 2022. Study subjects were selected after obtaining consent. All 50 cases were examined and lab investigation and radiological investigation were done.

Inclusion criteria: -

Patients aged more than 18yrs, Patients with clinically and electrocardiographically proven atrial fibrillation

Exclusion criteria: -

Patients with atrial arrythmias other than atrial fibrillation

Methodolgy:

50 patients with Atrial fibrillation were analyzed in this study, and their general and clinical data was included in the proforma.

Patient's age, sex, clinical symptoms and past history of Systemic Hypertension, Rheumatic heart disease, Coronary Artery Disease, chronic obstructive pulmonary disease, Hyperthyroidism, Cardiomyopathy, Congenital heart disease, Stroke, and treatment history, were taken in to account.

Diagnosis of atrial fibrillation was done by absent P waves, fibrillatory (F) waves, irregularly irregular ventricular rate in ECG were taken as the evidence for AF.

Evaluation regarding etiology of AF is done by using ECG and 2-D echocardiogram, Chest radiograph were done in all patients.

RESULTS: In this study 50 cases of atrial fibrillation, admitted in teaching institute were included as per the inclusion and exclusion criteria, the observations were recorded and results were compared with other and similar studies

AGE DISTRIBUTION:

AGE GROUP	18-40 YRS	41 -60 YRS	>60 YRS
NO. OF PATIENTS	04	21	25

In present study 50% of patients were in the >60 years' age group, followed by patients between age 41-60 yrs (42%), only 4 patients were of age 20-40 yrs. In our study AF is most common in age group more than 60yrs

GENDER DISTRIBUTION

SEX	MALE	FEMALE
NO.OF PATIENTS	27	23

Males were found to be more in number than Females. Out of 50 total patients 27 were males, 23were females. Males were seen to me more common than females

ETIOLOGICAL ANALYSIS:

S.NO	ETIOLOGY	NO OF PATENTS
1.	Coronary heart disease	28
2.	Systemic Hypertension	8
3.	Chronic obstructive pulmonary disease	4
4.	Hyperthyroidism	2
5.	Dilated cardiomyopathy	2
6.	RHD	6

Coronary heart disease was the most common etiological factor associated with AF. It was observed in 56% of the patients. The second most common etiological factor in our study was systemic hypertension. It was present in about 16%. About 8% of the cases of AF in our study had COPD as a possible etiological factor. Around 12% patients in our study had RHD as etiological factor. About 4% of the cases were due to hyperthyroidism, another 4% of the cases were due to Dilated cardiomyopathy.

SYMPTOM ANALYSIS:

S.NO	SYMPTOMS	Prevalence
1.	Chest pain	60%
2.	Shortness of breath	24%
3.	Palpitation	70%
4.	Syncope	8%
5.	Limb weakness	6%

The predominant symptom in this study was palpitation, which was present in about 70%, followed by Chest pain which was present in about60% and Shortness of breath was present in 24% patients. Syncope accounted for 8%, and limb weakness was present in only about 6%. Many patients actually had multiple symptoms

RISK FACTORS:

S.NO	HABITS	NO OF PATIENTS
1.	CHD	14
2.	HTN	8
3.	DM II	14
4.	OBESITY	6
5.	ALCOHOL	7

| 6. | TOBACCO | 9 |
| 7. | FAMILY HISTORY | 8 |

Out of 50 patients in study, 38 patients (76%) had associated risk factors, remaining 12 patients (24%) had no significant risk factors.

Among the study group 14 patients had coronary heart disease as risk factor. 8 patients had systemic hypertension, 14 patients had type 2 diabetes mellites, 6 patients were found to have obesity, 7 patients had habit of alchohol, 9 patients had history of tobacco addiction and 8 patients had significant family history (CHD and other cardiac diseases). Many patients had multiple risk factors.

Of the 7 patients with history of alchohol addiction, 3 patients had history of binge drinking.

PULSE RATE ANALYSIS:

PULSE RATE	UNCONTROLLED	CONTROLED
NO. OF PATIENTS	42	8

EJECTION FRACTION IN %(EF%LV SYSTOLIC FUNCTION):

| S.NO	CATEGORY	NO.OF PATIENTS
1.	Normal(>55%)	30
2.	Mild(45-54%)	12
3.	Moderate (30-44%)	5
4.	Severe(<30%)	3

60% of the study population had normal EF, 24% of the people had mildly abnormal, 10% of the people had moderately abnormal, and the remaining 6% of them presented with severe LVD

VALVULAR ABNORMALITY

S.NO	VALVULAR ABNORMALITY	NO OF PATIENTS
1	Isolated MS	4
2	Both MS/MR	2
3	Isolated MR	5

In our study isolated MS was present in 4 patients (8%) of RHD, 2 patients (4%) of RHD presented with both MS/MR, isolated MR was present in 10% of the study population and were found to have acute coronary syndrome

TYPE OF AF
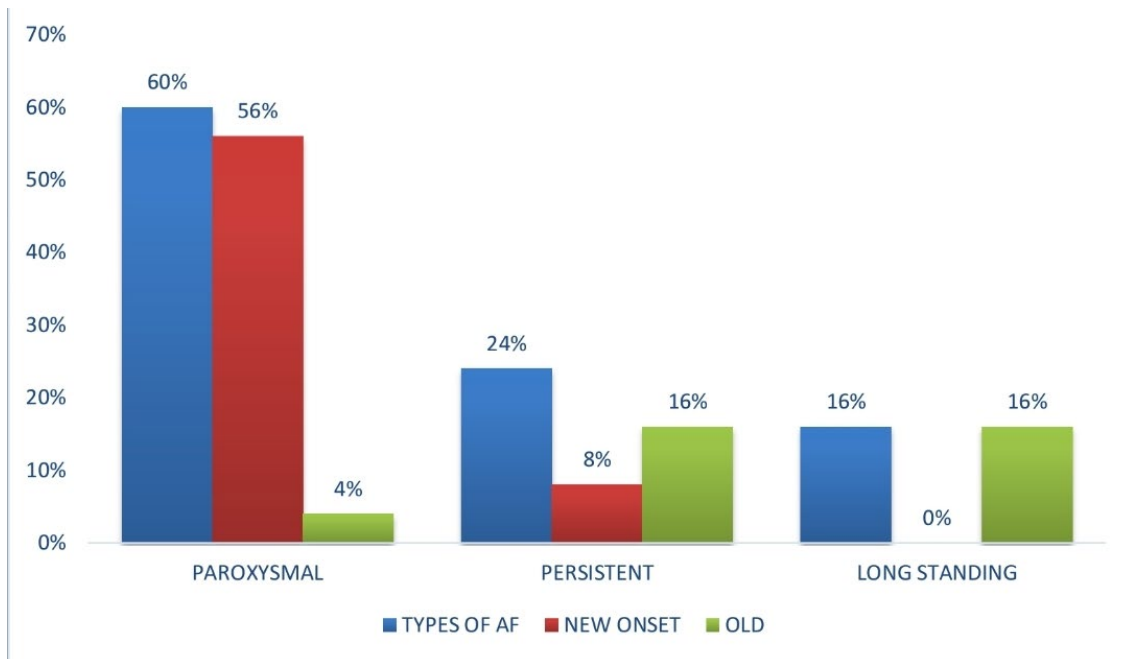
Out of 50 patients in our study 30 (60%) had paroxysmal AF, of which 28 patients (56%) had new onset AF, while remaining 2 (4%) had past history of AF .

12 patients (24%) had persistent AF, of which 4 patients (8%) were of new onset, remaining 8 patients (16%) had past history of AF (less than one year).

Remaining 8 (16%) had long standing AF.

Paroxysmal AF was found to be more common in new onset AF, while long standing and persistent AF was more common in patients with past history of AF

COMPLICATIONS:
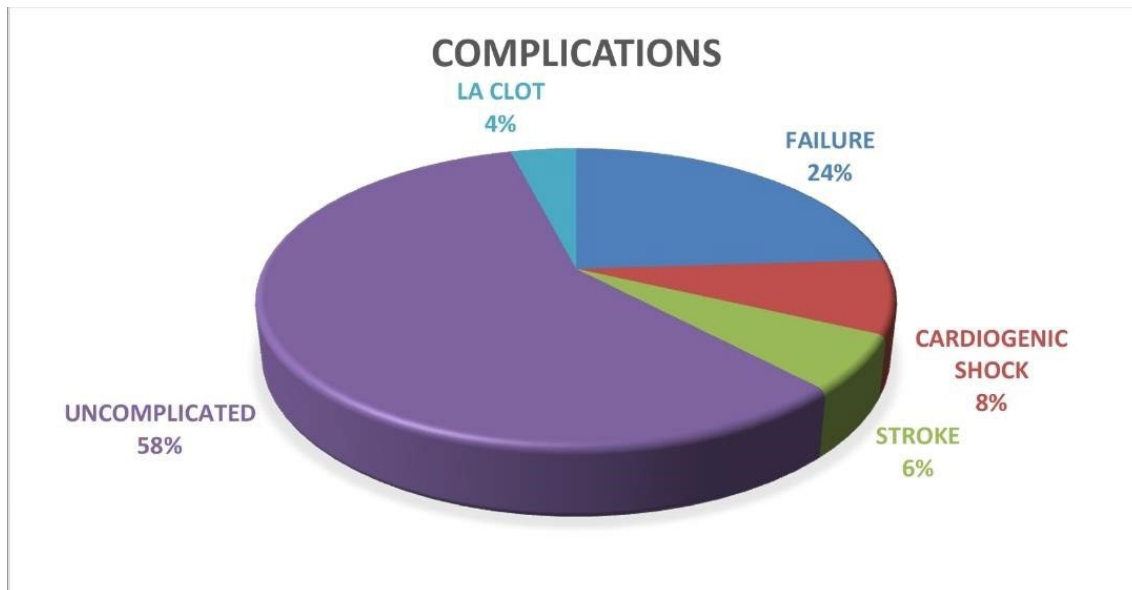
COMPLICATIONS

In our study population of 50 patients 29 patients (58%) had no complication while remaining 21 patients (42%) had complications. Most common complication was heart failure which was seen in 12 patients (24%), second most common complication was cardiogenic shock seen in 4 patients (8%), 6% (3 patients) developed cardioembolic stroke, While LA clot was seen in 2 patients (4%).

TREATMENT
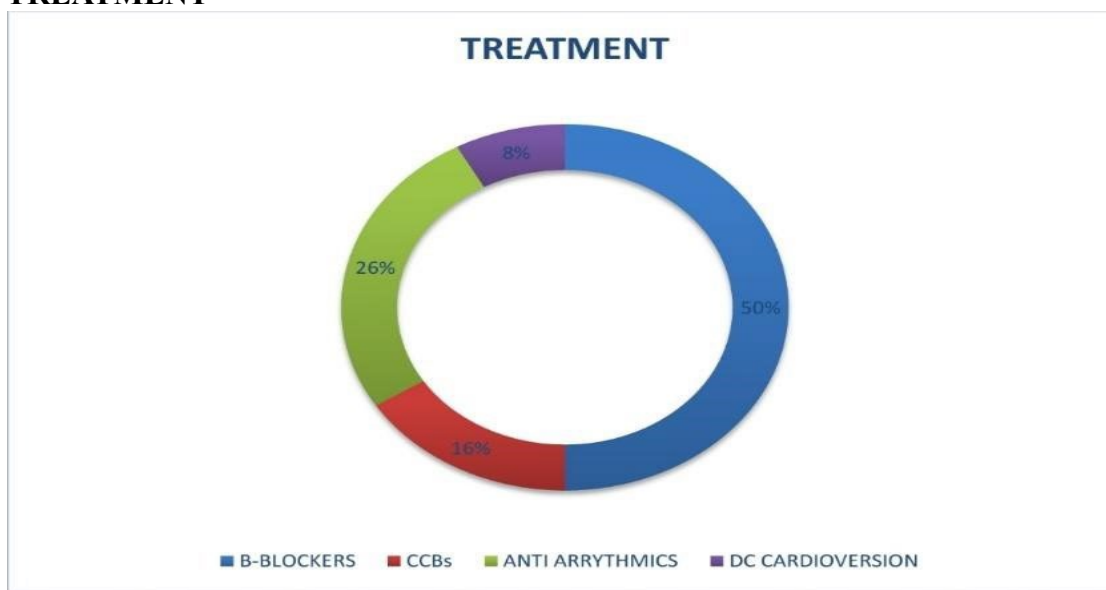
Of the study group, 25 patients (50%) were treated with B-blockers (Metaprolol), while second most common group of drug for rate control was anti-arrythmics (Amiadarone) which was used in 13 patients (26%) and 8 (16%) patients were treated with CCBs (Diltiazem). While 4 patients (8%) who were hemodynamically unstable required DC-Cardioversion. B-blockers were the most commonly used class of drugs and Metaprolol was the initial drug of choice for rate control in our study.

CONCLUSION

1. Male patients were more common than female patients.
2. Most common symptom in our study was palpitation.
3. Most common etiology was more commonly seen in younger age group.

4. Valvular etioligy was more commonly seen in younger age group.
5. Most common valvular abnormality was mitral stenosis.
6. Paroxysmal AF was the most common type of AF.
7. Paroxysmal AF was mostly seen in patient with new onset AF while persitent was seen in old onset
8. Most common class of drug used in treatment were B-blockers, followed by anti arrythmic.
9. Heart failure was the commonest complication seen, followed by cardiogenic shock

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