

ORIGINAL RESEARCH

To investigate the numerous predisposing circumstances and clinical presentations that are seen in cardiology department

Dr. Sajaad Manzoor

Assistant Professor, Department of Cardiology, Muzaffarnagar Medical College, Uttar Pradesh, India

Corresponding author

Dr. Sajaad Manzoor

Assistant Professor, Department of Cardiology, Muzaffarnagar Medical College, Uttar Pradesh, India

Email: drsajadmanzoor@gmail.com

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Abstract

Aim: The purpose of this study is to investigate the numerous predisposing circumstances and clinical presentations that are seen in cardiology department.

Material & Method: A tertiary hospital served as the location for this research, which was of the observational kind and included patients who had nonvalvular atrial fibrillation. The database for the research was generated via the process of prospectively recording patients who presented to the outpatient section of the hospital's Department of Cardiology with a diagnosis of atrial fibrillation, either chronic or paroxysmal.

Results: In our study majority of the patients presented with heart failure (47%) followed by myocardial infarction (12%), and cerebrovascular accidents (10%). There were 4 patients presented with fast ventricular response, 3 patients had acute chest infection and 3 patients had syncopal attacks. 1 patient presented with bleeding due to warfarin overdose and 1 with peripheral embolism. 11% of patients were symptomatic during presentation. Other presentations are Infective endocarditis, Ventricular tachycardia, acute febrile illness, diabetes, Koch's abdomen, aluminum phosphide poisoning and upper respiratory tract infection.

Conclusion: In conclusion, we came to the realisation that the vast majority of patients with atrial fibrillation in the population of central India presented with heart failure. Myocardial infarction and cerebrovascular accidents were other important clinical presentations that patients had. We discovered that valve heart disease, namely the involvement of the mitral valvular, is the most frequent condition that puts a person at risk for developing atrial fibrillation in this region of the nation. Other co-morbidities included heart failure and hypertension, both of which were in line with the data from the whole world.

Keywords: Predisposing, Clinical, Myocardial infarction, cerebrovascular accidents

Introduction

Atrial fibrillation is a common type of cardiac arrhythmia that can take on many different forms. The risk of developing a atrial fibrillation rises with age, as well as in conjunction with the majority of cardiac and some pulmonary diseases, as well as a variety of metabolic, toxic, endocrine, or genetic abnormalities [1]. It is responsible for the majority of hospitalisations that are due to disruptions in heart rhythm and is characterised by uncoordinated atrial activation with resultant impairment of atrial mechanical function [2]. It is the most common cause of hospitalisations. AF is characterised by the replacement of consistent P waves on an

electrocardiogram (ECG) by rapid oscillations or fibrillatory waves that vary in size, shape, and timing. This condition is also accompanied by an irregular, frequently rapid ventricular response when a trioventricular (AV) conduction is intact. The reaction of the ventricles to atrial fibrillation is determined by the electrophysiological characteristics of the AV node, the amount of vagal and sympathetic tone, as well as the effects of medicines [3]. Within the view of an AV square or impedance that is caused by ventricular or junctional tachycardia, it is possible to see standard RR stretches. Finding a trial fibrillation (AF) in inpatients who have electronic pacemakers may need a temporary interruption of the pacemaker in order to reveal the presence of a trial fibrillatory activity [4]. A tachycardia that is rapid, erratic, sustained, and has a large QRS complex unambiguously suggests a trial fibrillation (AF) with conduction across an accessory channel or AF with basic group branch block. Incredible high rates (over 200 beats per minute) are evidence that an embellishment route is present [5].

Material & Method

A tertiary hospital served as the location for this research, which was of the observational kind and included patients who had non-valvular a trial fibrillation. The database for the research was generated via the process of prospectively recording patients who presented to the outpatient section of the hospital's Department of Cardiology with a diagnosis of atrial fibrillation, either chronic or paroxysmal.

Inclusion criteria

1. All consecutive patients attending cardiology department.
2. Patients must have documented AF or having evidence of a trial fibrillation documented by 12 lead ECG within preceding 6 months.
3. All consented patients with AF will be enrolled, including those in whom AF is a secondary diagnosis (i.e.; patients seen for heart failure, pneumonia, etc).

Exclusion criteria

1. Patients with arrhythmias other than a trial fibrillation, e.g. a trial flutter, a trial tachycardias.
2. Patients with psychiatric illness and those under legal custody.
3. Anticipated poor compliance with follow-up and any other factor that would jeopardize follow-up, e.g. remote residence.
4. Patients with valvular heart disease leading to a trial fibrillation.

Results

In our study majority of the patients presented with heart failure (47%) followed by myocardial infarction (12%), and cerebrovascular accidents (10%). There were 4 patients presented with fast ventricular response, 3 patients had acute chest infection and 3 patients had syncopal attacks. 1 patient presented with bleeding due to warfarin overdose and 1 with peripheral embolism. 11% of patients were symptomatic during presentation. Other presentations are Infective endocarditis, Ventricular tachycardia, acute febrile illness, diabetes, Koch's abdomen, aluminum phosphide poisoning and upper respiratory tract infection.

Table 1: A trial Fibrillation Cohort: Baseline Characteristics (N=100)

Age Groups(Years)	No of Patients	%
Below 20	2	2
20-30	12	12
30-40	13	13
40-50	32	32

50-60	18	18
60-70	14	14
Above 70	9	9

Table 2: Type of a trial fibrillation

Type of a trial fibrillation	No of Patients	%
Paroxysmal	19	19
Persistent	11	11
Permanent	70	70

Table 3: Classification

Classification	B.M.I(Kg/m ²)	No of patients	%
Underweight	<18.5	36	36
Normal range	18.5-24.9	48	48
Preobese	25-29.9	13	13
Obese I	30-34.9	3	3
Obese II	35-39.9	0	-
Obese III	≥40	0	-

Table 4: Clinical Presentation

Clinical Presentation	No	%
Heart Failure	47	47
Cerebral Vascular Accidents	10	10
Peripheral embolism	1	1
Myocardial Infarction	12	12
Bleeding	1	1
Asymptomatic	13	13
Others	16	16

Discussion

According to the Realize AF vault, the average age of AF patients in the western population is 66.6 years old (with a standard deviation of 12.2), and 73.9% of patients are in the age group of less than 60 years old. According to the data found in the RELY AF registry[6], the average age of patients diagnosed with atrial fibrillation in the Indian population is sixty years old, but that number rises to sixty-five when rheumatic coronary sickness, tuberculosis, and HIV are taken into consideration. According to the findings of our research, atrial fibrillation was more common in younger people, with a mean age of 51.25± 11.52 years. Patients who were above the age of 70 made up 9% of the total, while those in their forties and fifties made up 32% of the total. According to the findings of our research, the majority of the patients (47%) passed away from cardiovascular failure, which was followed by myocardial localised necrosis (10%) and stroke (10%). According to the research found in the Realize AF library, the most common cause of repeated and severe cardiovascular events that lead to spontaneous admission is intense decompensation of cardiovascular breakdown, followed by intense coronary disorder and stroke. The information in our study is trustworthy with the patterns seen throughout the globe, despite the fact that the weight of cardiovascular breakdown in the continuous hospitalisation is extremely high in the group that we reviewed [7]. Seventy percent of the patients in our research were diagnosed with ultra durable AF, whereas 19 percent of the patients were diagnosed with paroxysmal AF and 11 percent of the

patients were diagnosed with persistent AF. The percentage of individuals with long-lasting atrial fibrillation was somewhat lower in the RELY AF vault than it was in the Realize AF library, which was 46.4%. In the RELY AF registry, paroxysmal AF accounts for 34% of cases, whereas stable AF accounts for 26% of cases [8].

Conclusion

In conclusion, we came to the realisation that the vast majority of patients with atrial fibrillation in the population of central India presented with heart failure. Myocardial infarction and cerebrovascular accidents were other important clinical presentations that patients had. We discovered that valve heart disease, namely the involvement of the mitral valvular, is the most frequent condition that puts a person at risk for developing atrial fibrillation in this region of the nation. Other co-morbidities included heart failure and hypertension, both of which were in line with the data from the whole world.

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