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Original Research Paper

A RETROSPECTIVE CASE STUDY OF INCIDENCE AND ETIOLOGY OF ATRIAL FIBRILLATION

Medicine

KEYWORDS: AF Atrial fibrillation ,SHT Systemic hypertension

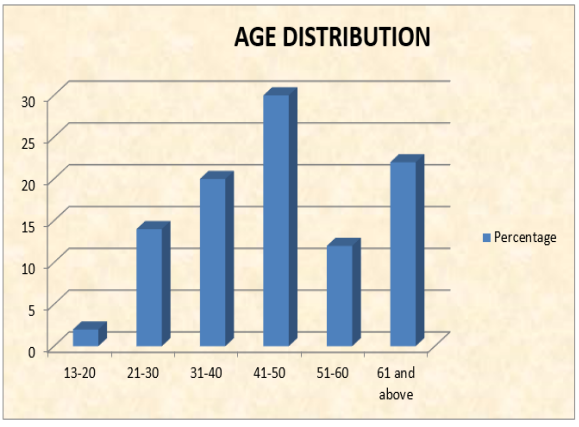
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ABSTRACT

Atrial fibrillation (AF) is associated with a higher incidence of mortality, stroke, and coronary events than is sinus rhythm. our aim in this study is to identify the most common etiological cause of atrial fibrillation . SAMPLE SIZE : 50 cases of inpatients admitted in the year 2015 were selected at random. INCLUSION CRITERIA :- 1. Both male and female patients were included in this study. 2. Samples were collected from medical OP, medical ward, ICCU,cardiologyOP. Exclusion Criteria Paediatric patients were not included in this study.

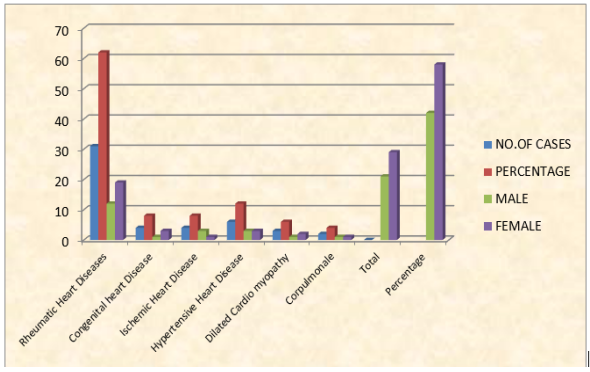
AGE DISTRIBUTION:

AGE IN YEARS	NO.OF CASES	PERCENTAGE
13 -20	1	2
21 – 30	7	14
31- 40	10	20
41 -50	15	30
51-60	6	12
61 and above	11	22



AETIOLOGY & GENDER DISTRIBUTION

	NO.OF CASES	PERCENTAGE	MALE	FEMALE
Rheumatic Heart Diseases	31	62	12	19
Congenital heart Disease	4	8	1	3
Ischemic Heart Disease	4	8	3	1
Hypertensive Heart Disease	6	12	3	3
Dilated Cardio myopathy	3	6	1	2
Corpulmonale	2	4	1	1
Total		21	29	
Percentage			42	58



AGE INCIDENCE:

In this study of atrial fibrillation cases, the occurrence of AF is maximum in age group 41-50 yrs.(2) The incidence is about 30%. The next commonly affected age group is elderly people of 61yrs and above. The incidence is around 22%.

GENDER INCIDENCE:

Out of 50 cases 28 cases were female, 22 cases were male, the incidence in female is about 58% and incidence in male is about 42%.

The prevalence of AF increases with age, and slightly more common in men than in women.(1)(2)

AETIOLOGICAL ANALYSIS:

In the etiological analysis among 50 cases of AF, the most common aetiology was rheumatic heart disease, followed by Hypertensive heart disease, ischemic heart disease, congenital heart disease, DCM, corpulmonale

RHEUMATIC HEART DISEASE:

Out of 50 cases 31 cases were Rheumatic heart disease. Incidence of RHD- 62% In this study of 50 cases of AF 31 cases were of rheumatic aetiology. In this group of 31 cases 42% of cases were presented with previous history of rheumatic fever. This study correlates well with many Indian studies. So the incidence of Rheumatic fever is still common in India.

HYPERTENSIVE HEART DISEASE:

In this study, the SHT with AF is detected 6 cases and incidence was 12%

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ISCHEMIC HEART DISEASE:
In this study old myocardial infarction was found in 4 cases. The incidence was 8%.

CONGENITAL HEART DISEASE:
In this study out of 50 cases of AF 4 cases were ASD, incidence was about 8%. Out of these 4 cases of ASD, 3 cases were in age group above 60 yrs.

DILATED CARDIOMYOPATHY:
In this study of 50 cases of AF, DCM found in 3 patients. Incidence was about 6%. Clinically, echocardiographically and ECG wise they had cardiomegaly without valvular lesion and ischemia.

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CORPULMONALE:
Out of 50 cases of 2 cases had features of COPD, incidence is about 4%

CONCLUSION
1. The occurrence of atrial fibrillation was more common above the age of 40 years.

2. AF was more common in females – 58%

3. The incidence of AF in men increases with age.

4. In this fifty cases the common aetiology of AF was RHD 62% followed by Hypertensive heart disease – 12 %, congenital heart disease (ASD) and Ischemic heart disease each carries 8%.

5. The congenital heart disease (ASD) with AF was found in 8% of cases.

6. The previous history of rheumatic fever was found in 42 % of cases.

7. The pulmonary hypertension was found in 44 % of cases.

Etiologies of Atrial Fibrillation
1. Atrial pressure elevation (leading to dilatation)
1. Valvular disease: mitral/tricuspid regurgitation or stenosis, mitral valve prolapsed
2. Systolic or diastolic dysfunction
3. Hypertrophic cardiomyopathy (HCM)
4. Pulmonary hypertension (COPD with cor pulmonale
5. Pulmonary embolism
6. Intracardiac thrombi or tumor

2.Inflammatory and infiltrative process
1. Pericarditis/myocarditis
2. Amyloidosis
3. Sarcoidosis
4. Age induced atrial fibrosis

3.Infectious process
1. Any infections and fever

5. Endocrine disorders
Hyperthroidism
Pheochromocytoma

6. Neurogenic
Stroke Subarachnoid hemorrhage

7. Atrial ischemia
Myocardial infarction

7. Drugs
Alcohol (holiday heart Caffeine

8. Idiopathic
Lone afib if less than 60 years old

9. Familial

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