

Atrial Fibrillation in Al-Mosul City: Age Distribution and Risk Factors

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ABSTRACT

This is descriptive study to show the age distribution and causes of AF in the Al-Salam teaching hospital in Al-Mosul city. 1321 patients with AF was selected, 925 of them (70%) their age was more than 60. The male to female ratio is 1.1/1. The most common cause in our study was the Hypertension (510 patients, 38.6%). The second cause was IHD (410 patients, 31%). The third cause was valvular heart diseases (100 patients, 7.5%). The other causes were thyroid diseases (80 patients, 6%), lung diseases (70 patients, 5.2%), lone AF (70 patients, 5.2%), Cardiomyopathies (30 patients, 2.2%) and Miscellaneous causes including drugs, alcoholic and other rare causes (51 patients, 3.8%).

Key words: Atrial Fibrillation, Risk Factors, Age Distribution

INTRODUCTION

Atrial fibrillation (AF) is the most common cardiac arrhythmia, Atrial fibrillation is the most common cardiac arrhythmia. It impairs cardiac function and increases the risk of stroke. The incidence of atrial fibrillation increases with age. Key treatment issues include deciding when to restore normal sinus rhythm, when to control rate only, and how to prevent thromboembolism. Rate control is the preferred management option in most patients. Rhythm control is an option for patients in whom rate control cannot be achieved or who have persistent symptoms despite rate control. The current recommendation for strict rate control is a resting heart rate of less than 80 beats per minute.

However, one study has shown that more lenient rate control of less than 110 beats per minute while at rest was not inferior to strict rate control in preventing cardiac death, heart failure, stroke, and life threatening arrhythmia a leading cause of stroke and is associated with increased mortality¹. Large epidemiologic studies have demonstrated that in most patients, AF is associated with advancing age and underlying cardiovascular disease, particularly hypertension, coronary artery disease and valvular heart disease⁽²⁾. However, our current understanding of atrial fibrillation is largely based on data from patients in North America and Europe³⁻⁶. Clinical experience and regional cohort studies suggest that other diseases, such as rheumatic heart disease, are more important causes of AF in other regions in the world^(7,8).

Aim of the study:

To evaluate and describe the pattern of atrial fibrillation among patients attending Al-Salam hospital in Mosul city

PRESENTATION

Atrial fibrillation has a wide spectrum of clinical presentations. Some patients may be asymptomatic. Others may present with stroke, overt heart failure, or cardiovascular collapse. Patients most commonly report palpitations, dyspnea, fatigue, lightheadedness, and chest pain⁹. Because symptoms are nonspecific, they cannot be used to diagnose and determine the onset of atrial fibrillation. If electrocardiography does not demonstrate atrial fibrillation and a strong suspicion persists, a Holter or cardiac event monitor may be needed to document the arrhythmia¹⁰.

DIAGNOSIS

Evaluation the first goal is to determine the patient’s cardiac stability and provide emergency stabilization if needed. If the patient is unstable because of hypotension, ongoing ischemia, severe heart failure, or cerebrovascular events, emergency electrical cardio version is warranted. If the patient is clinically stable, the history, physical examination, and diagnostic testing should focus on potential causes, triggers, and comorbid conditions ¹¹. Standard tests used to evaluate cardiac function and identify common comorbid conditions include electrocardiography, complete blood count, complete metabolic profile, thyroid-stimulating hormone measurement, chest radiography, and echocardiography ¹². Echocardiography provides information about heart size, chamber sizes, valvular anatomy and function, wall motion abnormalities, systolic and diastolic function, and pericardial disease. If there is clinical suspicion of myocardial ischemia, creatine kinase isoenzyme and troponin levels should be obtained. Select patients may need additional tests, such as stress testing and electrophysiology studies. ^(13,14)

PATIENTS& METHODS

Study Setting

The cases were collected in emergency unit, medical wards and Echocardiographic unit in Al-Salam hospital in Al-Mosul city, by designed questionnaires form.

Study Design

As observational descriptive cross sectional study was adapted to know the age distribution and causes, at AF in our city.

Study Period

The study period was 6 months, from 1/1/2018 to 1/6/2018.

RESULTS

1321 patients with AF, 925 of them was more than 60 years old about 70% (in America more than 90%). The male to female ratio 1.1/1 (in America 1.2/1)as in figure. (1).The most common causewas hypertension 510 patients and 38.6% the other causes were IHD 410 patients and 31%, Valvular heart diseases 100 patients and7.5%), thyroid diseases 80 patients and 6%, lung diseases 70 patients and 5.2%, lone AF 70 patients and 5.2%, Cardiomyopathies 30 patients and 2.2%, and Miscellaneous causes including drugs, alcoholic and other rare causes 51 patients and 3.8% as in (Figure2).

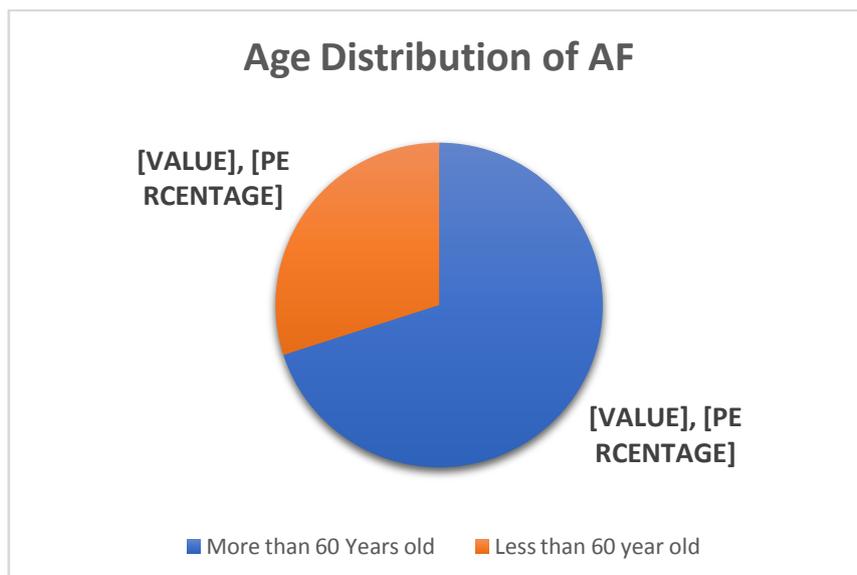


Fig.1: age distribution among cases of atrial fibrillation

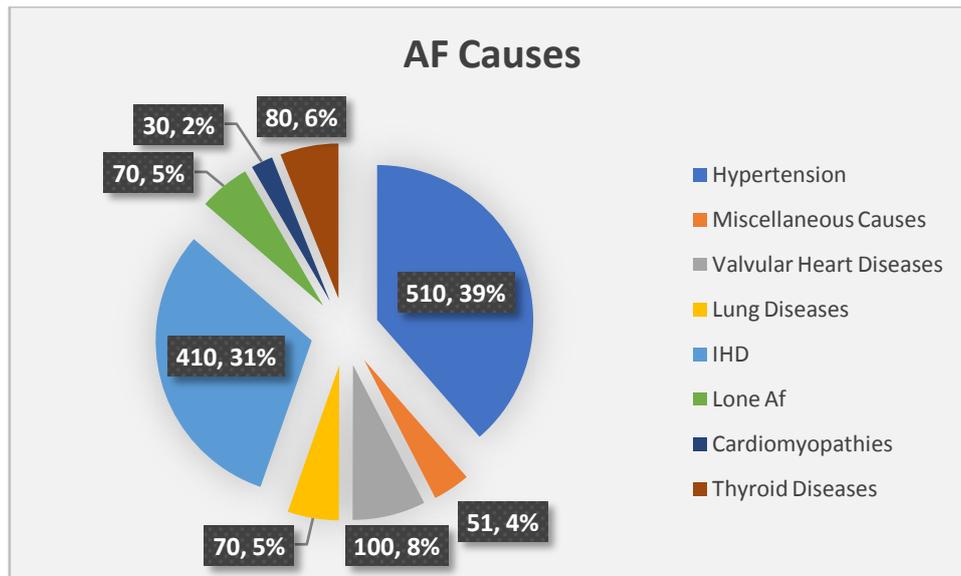


Fig. 2: cases distribution according to causes

DISCUSSION

According to gender we found that more atrial fibrillation among male than female, which is similar to Jordan, Kuwait, UAE study¹⁵.

The present study is similar to many western studies and middle eastern studies¹⁶. There was a high percent of lone AF (without obvious cause) and usually in the young patients, <40 years old. Valvular heart diseases as a cause is not so high, because there was a decline in the prevalence and rheumatic fever by the wide distribution of antimicrobial therapy. The leading cause was H.T. and it is a preventable cause. There were 3 types of AF: paroxysmal, persistent, and permanent. Our results agree with European and South American studies.

The treatment accordingly and according to the cause. AF in the elderly usually needs anticoagulation to prevent thromboembolic complications¹⁷.

CONCLUSION

AF is an important cause of stroke and other cardiac complications, so it is important to know more and more about causes and age distribution. Primary prevention by early diagnosis and treatment of H.T. and other risk factors plays a great role in prevention and by the way complications of AF.

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