CHAPTER

8

SUMMARY

Atrial fibrillation (AF) is a supraventricular tachyarrhythmia characterized by uncoordinated atrial activation with consequent deterioration of atrial mechanical function It is the most common sustained rhythm disturbance.AF is a common arrhythmia found in 1% of persons older than 65 years.Haemodynamic impairment and thromboembolic events related to AF results in significant morbidity, mortality, and cost.

AF is common in patients with permanently implanted pacemakers attending pacemaker follow up clinics. In the majority of patients with pacemakers, when AF develops it is “clinically silent” both because traditional symptoms are absent and because atrial rhythm diagnosis on a single-lead ECG may be difficult. As a result, a large proportion of these patients are inadequately treated to reduce the risk of thromboembolic stroke. Age over 65 years, history of hypertension, prior stroke or transient

ischemic attacks, diabetes & heart failure are independently predictive of thromboembolic risk. Paced patients with AF whom are at high risk for thromboembolism have similar risk of thromboembolism and stand to benefit from anticoagulants in the same way that none paced patients do. **(Folino, et al., 1998).**

Anticoagulation is underutilized in paced patients who develope AF after pacemaker implantation .These low rates of anticoagulation relate to the failure of diagnosing AF rather than a reluctance to anticoagulate patients with known AF.

Accordingly there was a persistent need to this work which aimed to assess the incidence of atrial fibrillation in patients with high degree heart block after implantation of VVI(R) mode.

This study selected 132 patients attending Nasr city insurance hospital and Ain-shams university hospitals' pacemaker clinic for follow up to assess the incidence AF. Demographic data collected included patient age and gender, whether a diagnosis of AF had been made before pacemaker implantation, and the duration of pacing.

History of ischemic, valvular, or hypertensive heart disease, history of warfarin or aspirin use after pacemaker implantation and its indication if possible.

The medical records of those patients with AF had been revised.

Patients were divided according to their atrial rhythm at the time of follow up into two groups:

Group I: included patients with sinus rhythm at the time of follow up. They were 115 patients (87%).

Group II: included patients with AF at the time of follow up. They were 25 patients .

The mean age of patients was 64.94 years , 34 patients were less than 65 years old and 66 patients were older than 65 years old, 68 patients were males and 32 patients were females, 37 patients had HTN,16 patients had DM, 31 patients had IHD, 57 patients had permanent pacemakers implanted for less than 4 year, 43 patients had permanent pacemakers implanted for more than 4 year.

Transthoracic echocardiography Doppler data was collected to detect LA size, LV systolic function by calculation of LV EF and presence of MR.

AF was defined by the presence of one of the following: (1) an irregularly irregular ventricular rhythm above the lower programmed rate of the pacemaker; (2) the presence of clear fibrillation waves between pacemaker artifacts on the 12 – lead ECG; or (3) the presence of clear fibrillation waves between pacemaker artifacts on the 12-lead ECG after the pacemaker had been reprogrammed to VVI 30 beats / min. A diagnosis of sinus rhythm was defined by demonstration of discrete P waves on the ECG.

There was no association between occurrence of AF after pacemaker implantation and age, sex, presence of HTN, DM or IHD.

Also there was no association between occurrence of AF after pacemaker implantation and LV function.

We found that there is a significant relationship between occurrence of AF and duration of pacing, LA diameter and presence of MR.

None of the patients who had AF was anticoagulated (0%).

The study concluded that establishing the underlying atrial rhythm of all paced patients should be a routine part of all pacemaker consultation and is an important role of the pacemaker clinic. Once the diagnosis of AF is confirmed, anticoagulation should be instituted as effective prophylaxis against thromboembolic stroke if the patient is at high risk.