Introduction

Atrial fibrillation (A.F): is the most common sustained arrhythmia occurring in approximately 0.4 % to 1 % of the general population, the prevalence of A.F increases with age affecting 4 % of the population over age of 60 years & up to 10 % of the population over age of 80 years [1 & 2]

Risk factors for the development of A.F include heart failure, hypertension; (HTN), coronary artery disease; (CAD), & valvular heart Disease. Moreover, both sustained & paroxysmal A.F have important implications for development of cerebrovascular accident (CVA) & other systemic emboli, it's estimated that 15-20 % of CVA in non rheumatic patients are due to A.F [3]

A.F may be classified into: lone, idiopathic, 1st detected (recent), recurrent, paroxysmal, persistent & permanent A.F. A.F is said to be recent or acute when diagnosed within 48 hours from the beginning of the attack [4]

Management of A.F requires first accurate diagnosis by ECG. Two findings are observed; 1st absent P waves which are replaced by F (fibrillatory) waves as the atrium is depolarized at a rate of up to 600 beat / minute, producing fibrillartory activities instead of normal P wave, 2nd is the ventricular QRS that are usually irregular [5] .

Rhythm in A.F may be regular & slow if A.F is combined with complete heart block. Rhythm becomes regular & rapid if A.F is combined with AV junction rhythm [6]. A.F usually correlated with positive C reactive protein; (CRP) [2].

After diagnosis treatment strategy is formed, management of A.F centers on 3 areas; Control of ventricular response, minimization of thromboembolic risk & restoration & maintenance of sinus rhythm.

Control of ventricular response can be achieved by drugs slowing conduction through AV node; β-blockers, Ca channel Blockers & digitalis. Thromboembolic risk management is achieved by either warfarin or aspirin according to risk stratification. In acute A.F restoration & maintenance of sinus rhythm depends on the patient's status. If the patient is hemodynamically stable pharmacological cardioversion is recommended by procainamide (Class Ia antiarrhythmic drug), amiodarone (Class III antiarrhythmic drug) or oral agents; propafenon (Class Ic antiarrhythmic drug), but if the patient is hemodynamically unstable direct current shock; (DC) is recommended with success rate of more than 80% [(7)].

If the attack of A.F lasted for more than 48 hours, 4 weeks anticoagulation is recommended keeping INR ranging from 2-3 then rhythm control is tried either by pharmacological cardioversion, direct current cardioversion; (DCC) or catheter ablation with pulmonary vein isolation as pulmonary veins is predominant source of ectopic foci [(2)], in refractory symptomatic A.F pacemaker is recommended [(8&9)].