Summary

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

Risk factors for development of A.F: including heart failure, HTN, Coronary Artery Disease (CAD), & valvular heart disease, Moreover, both sustained & paroxysmal A.F have important implications for development of cerebrovascular accidents (CVA) & other systemic emboli. It's estimated that 15-20 % of CVA in non rheumatic patients are due to A.F

A.F may be classified into: lone, idiopathic, 1st detected (recent), recurrent, paroxysmal, persistent & permanent, A.F A.F is said to be recent & acute when diagnosed in patient within 48 hours from beginning of the attack. Management of A.F requires first accurate diagnosis by ECG two findings are observed; 1st absent P wave replaced by F (fibrillatory) waves as atrium is depolarized at rate of up to 600 beat / minute, producing Fibrillartory activities instead of normal P wave, the 2nd is ventricular QRS that are usual irregular.

A.F usually correlated with positive CRP. 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.

The aim of the study is to detect most common predisposing factors Of A.F & How the clinical factors & strategy of management influence response to treatment strategies in recent A.F

The study included 62 consecutive patients (31 males and 31 females), admitted to the cardiology department & C.C.U &attended the outpatient cardiac clinic at Mansoura

International Specialized Hospital for assessment & treatment of recent atrial fibrillation during the period from October 2005 & October 2006**,** The 62 patients with recent A.F included in this study were divided into two groups group 1 including 52 successfully cardioverted patients using pharmacological agents or electrical by DCC, group 2 including 10 patients failed to be cardioverted .

Both groups were studied and compared including the study of risk factors for A.F, laboratory findings and echocardiographic parameters.

In the present study Age of patients ranged from 22 to 80 years 50 % of them were males & 50 % were females, all cases cardioverted with Rytmonorm had EF > 50 % as the main contraindication of Rytmonorm is heart failure where the use of Cordarone is safe, all cases cardioverted with Rytmonorm had no wall motion abnormalities as use of Rytmonorm in patients with past history of infarction & major cardiovascular events is contraindicated , CRP (inflammatory marker) was elevated in 33 patients (63.5%) with A.F especially with persistent A.F (failed to be cardioverted) [(49)]. The mean CRP in the cardioverted patients was 14.823 mg/dl while it was 33.6 mg/dl in patients in whom A.F persisted. Persistent & high elevation of C-reactive protein was a predictor of persistence of A.F & of being resistant to antiarrhythmic drug therapy for cardioversion, it is now believed that inflammation marked by elevated CRP is involved in structural atrial remodeling, increased left atrial diameter is associated with more elevation of CRP & more resistance of A.F cases to be cardioverted [(160&161)]. E.F was higher in cardioverted cases than noncardioverted cases, mean left atrial diameter was larger than 4cm in noncardioverted cases, 33 patients were given Cordarone 26 of them have been cardioverted with success rate 78.8% & 15 patients were given Rytmonorm 12 of them have been cardioverted with success rate 80%.

Conclusions:

- The most important risk factors for development of A.F were as follows;

  1- Hypertension: 50 % of patients

  2- Valvular heart disease: 42.8 % of patients

  3- Ischemic heart disease (IHD): 23.5 % of patients

  4- Heart failure (H.F) & Cardiomyopathy (C.M): 9.6 % of Patients

  5- Chronic Obstructive Pulmonary Disease (COPD): 5.8 % of Patients.

  6- thyrotoxicosis: 1.9 % of patients

- Rytmonorm has higher efficacy than Cordarone in cardioversion of recent A.F but Cordarone could be used more safely in patients with H.F, C.M & major structural heart disease.
- The use of both Cordarone & Rytmonorm in a combination has a Synergistic effect for Cardioversion that is more potent than the use of one of them alone.
- The most important factors predicting persistence of A.F & failure of Cardioversion were:

  1- Persistent high elevation of CRP

  2- Decreased E.F < 50 %

  3- Increased left atrial diameter > 4 cm