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LETTER TO THE EDITOR

REASONS AND METHOD TO PREVENT, WHEN POSSIBLE, ATRIAL FIBRILLATION

RAZONES Y MÉTODO PARA PREVENIR LA FIBRILACIÓN AURICULAR CUANDO PUEDE LOGRARSE

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To the Editor:

Since the discovery of atrial fibrillation (AF) as an alteration of the excitation and conduction of cardiac atria, it has become a huge potential market, which attracts many resources to its investigation. New drugs, pacemakers, defibrillators, and methods of linear or focal ablation in the lung veins are continually developed[1]. Each step raises more questions than answers, which causes some conceptual confusion[1]. The clinical and epidemiological impact of AF is high; also it is currently the arrhythmia from which the most scientific literature is generated. This scientific interest is due to different reasons, such as the persistent lack of knowledge of its mechanisms and its difficult control and treatment[2].

If the following aspects are considered, we will have sufficient reasons to prevent AF:

1. It has been suggested that AF is due, mainly, to a pre-existent illness[2]. It is an arrhythmia associated with risk factors which may be modified, as in hypertension, ischemic heart disease and obesity. For example, it has been suggested that hypertension is the risk factor most frequently associated with AF, and is found in about 70% of patients, probably in part because of its large prevalence[2-4].
2. The high prevalence of these associated risk factors has turned AF into an epidemic arrhythmia[5], which when first appears (first episode) and relapse can be a progressive disease that worsens over time: AF triggers AF, causes electrical, mechanical

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and structural remodeling of the atria, and can cause reduced heart function, increased risk of thromboembolism, cardiomyopathy and finally, death[1,6,7].

3. Sometimes, generally in the elderly, and in a non-negligible percentage (17%), atrial fibrillation is asymptomatic. This can result in expected complications, such as heart failure, stroke and even death, as mentioned above, which increase further the cost of medical care to patients[5,8].
4. Although widely studied, the treatment methods for chronic AF have proved costly and even ineffective so far. For example, in most patients the total isolation of the pulmonary veins through ablation, often do not eliminate the arrhythmia, moreover, in many of them not even the pattern or frequency of activation is modified[9].
5. There is an electrocardiographic variable, the P-wave dispersion, which would help us identify patients at risk for AF, a variable described in most diseases associated with this condition, which would help us to pay greater attention to risk patients, e.g. those with arterial hypertension or heart failure. As a method of treatment, drugs that in their pharmacological actions inhibit the renin-angiotensin-aldosterone system, and prevent or reverse fibrosis of the atrial wall, would be used. With this, the remodeling mentioned in previous sections, that is the basis for the initiation and maintenance of AF, would be delayed or prevented[10,11].

The need to continue studying the pathophysiology and the search for appropriate treatment of AF cannot be denied, as long as it is recognized that its prevention is generally related to those risk factors associated with this condition. Currently, the prevention and control of modifiable risk factors are reasonable ways to change the epidemiological data of AF.

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