

Quality of Life in Patients With Atrial Fibrillation

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Atrial fibrillation (AF) is an increasingly common cardiac rhythm disturbance. Although it occurs predominantly in the elderly, younger patients with this arrhythmia are becoming more common.¹ The arrhythmia occurs against the background of a wide variety of disease states, predominantly cardiovascular, some of which are disabling in themselves. A small proportion of AF does not appear to have any obvious cause (lone or idiopathic AF) and in these patients the arrhythmia is often paroxysmal in nature and highly symptomatic. Between attacks, patients may have no symptoms, but the memory of the arrhythmia may limit the patient's activities and ambitions. In many patients with persistent or permanent AF the arrhythmia may be almost clinically silent,² until a serious consequence, often difficult to reverse, such as stroke or decompensated heart failure, occurs, which then dramatically reduces the patient's quality of life. Thus the determinants of quality of life in a patient with AF may depend on several critical factors: the patient's age and activity level, the conditions which underlie AF and their treatment, the medical consequences of AF, and finally the AF and its temporal pattern.

There is little or no doubt that, in general, patients with AF have a substantially degraded quality of life when compared with the normal population.³ Life quality is similar to those who have sustained and survived a myocardial infarction.⁴ Even those with clinically silent (asymptomatic) AF do not have a normal quality of life.⁵ Unfortunately,

there is practically no study which has evaluated the same patients during an episode of AF, shortly after such episodes, and much later after single events or paroxysms which are known to be recurrent. Such a series of experiments would provide good controls for most of the other variables on which quality of life assessment might depend in a patient with AF.

It is highly likely that life quality, as it is currently assessed, will be highly dependent on the patient's symptomatic status at the time of the assessment, especially if the symptoms are severe. On the other hand, if the patient is asymptomatic, quality of life may depend more on the memory of being badly troubled by the arrhythmia and concern about its recurrence. Such concerns may recede as time passes since the last symptomatic event, thus the timing of any assessment relative to the occurrence of the arrhythmia may be important. In patients who are asymptomatic during the arrhythmia their life quality may be dominated by other major factors such as money, mobility, memory, social situation, etc. There are some patients who deny symptoms, only to admit when the arrhythmia is finally treated and sinus rhythm is restored that they were badly limited. Yet others seem to be truly asymptomatic (normal activity scores) but their quality of life is measurably depressed.⁵

Although the quality of life associated with AF is degraded, it has not often been possible to demonstrate conclusively that quality of life is much improved by a particular treatment strategy. For example, in both AFFIRM⁶ and AF-CHF⁷ there was no statistically significant improvement in quality of life when comparing rhythm control with rate control. It was however possible to show that those patients who remained in sinus rhythm in AFFIRM had a better quality of life. Surprisingly, in other studies it has not been possible to show that quality of life is improved by stricter (resting heart rate <80 bpm) rather than more lenient rate control (resting heart rate <110 bpm).⁸ Thus, treatment strategy as such does not seem to influence quality of life.

Individual treatments have also been extensively investigated and few studies have been convincingly positive with regard to quality of

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life improvement. The SAFE-T study was widely acclaimed as having demonstrated an improvement in quality of life secondary to antiarrhythmic drug treatment, but it was only in those who remained in sinus rhythm, independent of treatment assignment, that a large improvement was seen.⁹ Some small studies, for example using flecainide, have shown marginally positive results,¹⁰ but there are not many of these. However, with the advent of catheter ablation it seems that quality of life may be impressively improved in patients who undergo this procedure.¹¹ Of course a left atrial ablation cannot be performed in a “blind” fashion and there may well be a highly significant placebo effect involved, especially when the patients have already failed numerous other drug-based attempts to manage their arrhythmia and are finally offered a potentially “curative” procedure. Also, all of the patients undergoing the procedure are highly symptomatic and have little in the way of underlying cardiovascular or systemic disease. Their high symptomatic profile and degraded quality of life might well have been solely due to the AF, their emotional and physical response to the arrhythmia, and their disappointment with other therapies, all of which might have been overturned by the catheter ablation procedure.

The 3 P classification of the temporal pattern of AF was originally introduced by Gallagher et al,¹² was recommended in the 2006 ACC/AHA/ESC guidelines,¹³ and also in the 2010 ESC guidelines¹⁴ for the management of atrial fibrillation. The medical community has used this classification because it relates well to patient symptoms and choice of treatment strategy. It also encapsulates the notion that AF is a progressive disease which moves from its first onset through short paroxysms to longer persistent episodes and finally to permanent AF. Quality of life is likely to incorporate multiple factors which might influence life quality differently in different types of AF. For example, paroxysmal AF often presents more in younger patients with little underlying heart disease and more imperative physical needs, whereas older patients with underlying heart disease who are often more sedentary and less active may have persistent or permanent types of atrial fibrillation. It is difficult to identify and subsequently control or compensate for all of these potential confounding factors, thus making any simple relationship between quality of life and AF subtype difficult to discern.

The findings of Rafael Peinado et al,¹⁵ although surprising at first sight, may simply be explained by the complex mix of patients within the temporal sub-types of the arrhythmia, rather than any insensitivity of the quality of

life instrument that was chosen to assess this challenging aspect of the malaise associated with atrial fibrillation.

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