Cardiology-2020: Anxiety and atrial fibrillation: an interesting bidirectional association - Ashraf Alqaqa - Tennova Healthcare, USA

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Introduction:

Atrial fibrillation (AF) is the most widely recognized cardiovascular arrhythmia. Diabetes, male gender, congestive heart failure, obesity, and hypertension are major risk factors contributing to the increasing prevalence of AF. Furthermore, AF, associated with augmented morbidity and mortality rates, has been correlated with an inferior quality of life and amplified risk of cardiac failure and cerebrovascular accidents.

While several studies have evaluated the passive influence of anxiety, and other psychological disturbances, on health related outcomes of variable cardiac disorders, the mutual effect between AF and anxiety remains elusive. While psychological comorbidities may have an impact of manifestation, the disease course affects the personal satisfaction and the quality of life. The explanation and directionality of such correlation warrant further assessment. Subsequently, this evaluation will be reflected, eventually, in better patient outcomes.

Accordingly, the aim of the current review is to: (1) studying the prevalence of anxiety-associated AF through the appraisal of the related literature (2) evaluation of the distinctive effect of anxiety in AF patients (3) ascertain an evidence of pathophysiological crosstalk between anxiety and AF (4) elucidate the effect of anxiety, if any, on management of AF.

Methods:

Different databases "Embase, EconLit, Google Scholar, Medline, PubMed, ProQuest, Scopus, Springer Link and Science Direct" were subjected to a comprehensive literature mining in the period from 2001 till December 2016.

In various combinations, "Atrial Fibrillation", "Anxiety", "Cardiovascular disease", "Treatment" and "Epidemiology" were used as keywords using BOOLEAN and MeSH search.

Additional publications, reached through a manual search of references of related papers and review articles, were also cited when applicable.

Results and Discussion:

Primarily, 213 studies were retrieved through the above-mentioned searching method. Such list was shortened to 152 as 62 were duplicates and therefore omitted. Out of enduring articles, 70 were excluded based on irrelevant title and/or abstract. Subsequently, full text of 81 articles were appraised and 48 studies were further disqualified as these failed to provide relevant details. Accordingly, 33 articles were particularly selected for this review.

Anxiety in AF patients:

Numerous reports analyzing the anxiety among cardiac patients are currently carried out in coronary heart disorder patients. It has been stated that patients suffering AF only are subjected to an increased rate of psychological distress. Thrall et al. reported that about 28% and 38% of AF patients were supposed to have state and trait anxiety according to State Trait Anxiety Inventory (STAI). Whereas, the height of trait anxiety was significantly higher compared to those patients bearing other chronic disorder, hypertension as an example, assessed along the study (38% among AF patients vs. 22% among hypertensive patients, =0.03).

Pathophysiological link between AF and anxiety:

Various studies have emphasized the augmented anxiety rate among AF patients attributed to the poor quality of life. Paradoxically, little information is known about the possibility of triggering AF by anxiety. In a study by Eaker et al. it was obvious that anxiety could be one of the predictors of ten-year incidence of AF in both male and females.

The effect of AF treatment on anxiety and impact of anxiety on treatment success:

Strategies implemented to treat AF comprise electrical cardio version, catheter ablation and pharmacological agents. The report that is made by AF-CHF trial of rate versus rhythm control, reported no benefit found among rhythm versus rate control, in prevention of death among those patients enduring symptoms of anxiety. Additionally, Frasure-Smith et al. reported lower cardiovascular mortality in rhythm control group in those patients who have CHF and AF with greater sensitivity to anxiety compared to those that receiving rate control.

Conclusion:

This article represents a proof of concept that a relationship exists between anxiety and AF. The latter can ground the former among patients and equally, the former can pave a background that is favourable for the initiation and Progression of the latter.

Considerably, anxiety affects how patients, especially in women, approach their disease. The incidence of anxiety may affect the efficiency of various AF therapies. Hence, executing strategies reducing anxiety in AF patients could improve treatment consequences, patients HRQOL, and lower financial difficulties related to AF. These strategies comprise; patient orientation about disease course progression, strict management of AF symptoms, encouraging catheter ablation after antiarrhythmic drugs failure, and possibly treating the patients with anxiolytics. Additional trials are essential to assess the benefits of SSRI practice in decreasing the incidence of AF and HRQOL enhancement in AF patients.

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