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Psychiatric Comorbidity and Psychosocial Factors Matter in Heart Failure

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Comment on "Heart failure functional class associated with depression severity but not anxiety severity" by Celik E. et al. Acta Cardiologica Sinica 2016;32:55-61.

The incidence and prevalence of heart failure (HF) continues to increase despite the advances in therapies that have occurred.[1] The impact of psychiatric co-morbidity and psychosocial factors on HF has been studied extensively. Many studies have focused on the link between depression and HF.[2-5] While depression in patients with HF is the psychiatric problem most commonly discussed,[6] anxiety is often present concurrently with depression, and may be associated with poor prognosis in patients with HF. However, only a few studies have examined the association between anxiety and HF, and the results of these studies have been inconsistent.[7,8] Particularly, 8-16% of patients with HF suffer from distressful anxiety, such as generalized anxiety disorder or panic disorder.[9,10] Overall anxiety levels are 60% higher in HF patients than in the healthy elderly population.[11]

Given that anxiety disorders differ in types and symptoms, assessing the severity of anxiety may be more difficult than assessing the severity of depression. Considering its brevity, simplicity, and presumed ability to measure general anxiety, the Beck Anxiety Inventory (BAI) might be a good candidate for clinical use as a severity indicator.[12] However, the value of BAI has been disputed for its focus on psycho-physiological symptoms linked to panic.[13,14] Arguably, the instrument seems to reflect the severity of depression, but is not a suitable scale to effectively differentiate between anxiety and depression.[12]

Importantly, many studies have shown that depression, but not anxiety, was associated with poor outcomes in HF patients who were hospitalized[3,15] or had a low ejection fraction (< 35%).[9,16] Miyuki et al. observed that anxiety was independently associated with adverse outcomes in patients with mild HF.[17] Even anxiety has been linked with prognosis, morbidity, and functional status in patients with HF, although only a few studies have investigated the determinants of anxiety in patients with HF. The distressed (type-D) personality may be another important, but easily ignored, determinant of anxiety in HF patients.[18] Type-D personality is referred to as the combined tendency to experience negative emotions (high negative affectivity) and to inhibit self-expression in social interactions (high social inhibition).[19] Additionally, type-D personality has been associated with worse prognosis and impaired quality of life in patients with coronary artery disease.[20] Furthermore, type-D personality is independently linked with an increased risk of depression and anxiety in patients with HF.[21]

In the study of Miyuki et al., depression was associated with living alone and poor social support rather than medical factors among patients with HF.[17] Social factors were important predictors for depression and anxiety, suggesting that the establishment of a social support system should be an essential element in HF treatment. Patients with chronic HF often have cognitive impairment, particularly in memory, psychomotor speed,

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and executive function.[22] Cognitive impairment in HF patients is related to grey matter loss which has been revealed by a brain imaging study.[23] Cognitive impairment is multi-dimensional, and poor concentration is one of its several possible presentations. Poor concentration is also included in depression and anxiety symptoms cluster. Therefore, cognitive deficit in HF patients is associated with both neurological and psychiatric factors.

In the current study, depression severity, but not anxiety severity, is positively associated with HF symptom class.[24] However, several points do need to be addressed. First, this cross-sectional study can only show the severity of depression increases with HF symptom class, but cannot show that depression increases the risk of HF. Second, the definition and selected psychometric scale for determining the severity of anxiety may affect the relationship between anxiety and HF symptom class. The self-report questionnaires such as the BAI might not be sufficiently precise to make a psychiatric diagnosis of anxiety, and differentiate between anxiety and depression in patients with HF. Third, symptoms of HF, treatment and timing of evaluation may influence the values of BAI and the observed relationship.

Highly prevalent psychiatric co-morbidity and psycho-social factors are commonly observed in patients with HF. This field deserves additional clinical attention in order to develop a comprehensive evidence-based assessment tool that comprises depression, anxiety, personality trait, cognitive function, and psycho-social stresses for patients with HF. With this tool, clinicians may better identify subjects at increased risk, and adjust therapeutic strategies accordingly to improve patient outcomes.

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