

Insomnia among Patients with Chronic Heart Failure

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Heart failure (HF) is a chronic, progressive disease, a complex clinical syndrome that results from any structural or functional disorder of the heart. It is defined as the inability of the heart to function effectively according to metabolic requirements of the body [1]. HF is a common disease, especially among the elderly, and is one of the most important causes of morbidity and mortality worldwide [2]. In United States of America, about 650,000 people are diagnosed with HF every year, with the disease being one of the most common causes of admission to hospital [1,3]. Also, there are 15 million patients with HF in Europe [4].

Clinical manifestations of HF include dyspnea, fatigue, nocturia, and fluid retention that can lead to pulmonary edema, peripheral edema and ascites [4]. Over the past few years has been a global scientific concern for less life-threatening but extremely troublesome manifestations of HF, such as insomnia and its effects on the daily life and quality of life of patients with HF. Insomnia is a persistent sleep disorder, characterized by the difficulty of initiating and/or maintaining sleep, while early morning awakenings is a common problem. As a result, feeling of daytime fatigue, reduced concentration, headache, irritability and psychological disorders are caused [5].

Príncipe-Rodríguez et al. in their study [6] examined patients with HF for sleep disturbance symptoms and correlated symptoms with markers of clinical status. Among participants, 31.3% reported symptoms of chronic insomnia. Paroxysmal nocturnal dyspnea and New York Heart Association status classification were associated with complaint of insomnia. Broström et al. [7] found that the most common sleep disturbances among patients with HF were difficulty in initiating, maintaining sleep, and early morning awakenings, while 21% of patients referred daytime sleepiness. The above sleep disorders were associated significantly with poor quality of life.

In the study of Garcia et al. [8], 159 older adult patients with HF examined for their sleep quality and cognitive function. It was found that problems most commonly reported by the patients were difficulties falling asleep (20.8%), staying asleep (49.6%) and interruptions in sleep due to bathroom use (56.0%). Impaired sleep has been associated with poorer cognitive function, reduced quality of life and increased depressive symptomatology.

In another study, Wang et al. [9] found that eight to ten (81%) patients with HF reported poor sleep quality. Sleep efficacy and duration of sleep during the night were the main problems. The most common reason for sleep interruption was the urination during the night. Also, female patients, those who had self-perceived poor health, comorbidities and depression were related with poor sleep quality. Insomnia was reported by 32% of patients with HF in a recent study of Chimluang et al. [10]. Most mentioned problems with sleep were difficulty falling asleep, difficulty staying asleep, and waking up too early. Factors correlated with insomnia were depression, anxiety, marital status (divorced, widowed) and dyspnea.

According to abovementioned studies insomnia is common among patients with HF. Other investigators tried to found methods for reducing the frequency and severity of insomnia and diminishing the effects of it on patients with HF. In a randomised controlled trial of Suna et al. [11], the effect of a supervised exercise training programme on sleep quality in recently discharged heart failure patients was examined. Almost half of patients with HF at baseline reported poor sleep quality. Females and those with severe HF reported insomnia more frequently, while patients with poor sleep quality reported significantly more depression symptoms. Patients participated in exercise training

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programme showed significantly greater improvement in sleep quality. The greater improvement was detected in patients with reduced difficulty breathing at night.

In conclusion, insomnia and poor sleep quality are of major concern for patients with HF. Insomnia is an undervalued problem by healthcare professionals, and has a significant

negative impact on functional capacity, self-care and quality of life of patients with HF. The international scientific community must be more concerned with addressing the problem, aiming at the development of insomnia prevention methods that can be applied in primary health care facilities and by the patients in their home.

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