Ivabradine in Chronic Heart Failure

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Abstract

Heart failure (HF) is an epidemic of cardiovascular disease resulting in impaired function and worsened quality of life (QOL) of HF patients. Increased heart rate correlates with poor outcomes in these patients; therefore, its reduction may be beneficial in reducing hospitalization for worsening HF. Guideline therapy recommendation for ϐ-blocking agents is a standard cornerstone for the treatment of HF. Despite, the dose adjustment of ϐ-blockers for patients who cannot withstand the target dose, desired goal heart rate reduction is unfortunately not always reached. Additionally, ϐ-blockers are contraindicated for certain patients. Ivabradine decreases the heart rate through inhibiting the cardiac pacemaker current (If) without having any influence on the sympathetic nervous system. The drug has been approved by the United States Food and Drug Administration in 2015. In 2012, ivabradine use was included in the European Society of Cardiology (ESC) guidelines for the management of HF, to be used alongside ϐ-blockers or as a safer substitute. This short review aimed to discuss the ivabradine use in both reduced and preserved ejection fraction HF patients. Ivabradine was found to be generally tolerable and safe. Efficacy for HF patients with systolic dysfunction has been confirmed, however, in HF patients with diastolic dysfunction, it is yet to be extensively evaluated. Moreover, the role of ivabradine in HF patients with Atrial Fibrillation (AF) is currently under investigation.
Keywords: Ivabradine; Heart Failure; Heart Rate; Quality of Lif.
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Archives of Pharmaceutical Sciences Ain Shams University 2020, July

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