



Review article

B₂-R-bradykinin agonist-a novel approach in the treatment of cardiovascular diseases

Shaziya Afreen^{1*}, Zainab Mahveen²

¹B. Pharmacy, Deccan School of Pharmacy.

²Department of Pharmacology-Deccan School of Pharmacy.

Key words: Bradykinin, cardiac heart failure, coronary artery disease, cardiovascular disorders.

***Corresponding Author: Shaziya Afreen,** B. Pharmacy, Deccan School of Pharmacy.

Abstract

Bradykinins are the most potent biologically active peptides located in vascular smooth muscle. The continuous advances in the characteristics of bradykinin receptors through development of selective receptor and molecular biology techniques aids to the rational design of drug effective in the treatment of cardiovascular diseases. BK B₂ receptor is not only implicated in the pathogenesis of inflammation, pain and tissue injury that also in powerful cardio protective mechanisms to treat and prevent various CV disorders such as hypertension, CHF, venous thrombosis, ventricular hypertrophy, ischemic heart disease. Several preclinical studies have been conducted using pharmacological agonist by which it was found that B₁R have noxious effects whereas B₂R have an important role in the process of coronary artery disease (CAD) and ischemic post conducting that limits the ischemia/reperfusion injury of the myocardium. However, none of the currently potent selective and non peptide agonists of BK B₂ receptors - JMV 1116 (Fournier), RMP-7 (lobradamil), FR-190997 (Fujisawa) have been selected for the clinical assessment in cardiovascular indications. We therefore conclude that the treatment with potent and highly selective B₂ receptor agonist, initiated immediately after the occurrence of acute ischemic event, should be explored as a potent therapeutic option in these circumstances. One of the major challenge is still an unanswered question that which of the mechanisms cardio protective (or) inflammation is extensively shown by BK B₂ receptor agonist. The following review will throw light on this discussion.