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Poster Sessions

Acute blood pressure-lowering effects of A484954, a eukaryotic elongation factor 2 kinase inhibitor in ratsTomoko Kodama¹, Muneyoshi Okada¹, Hideyuki Yamawaki¹¹*Lab. Vet Pharmacol., Sch. Vet. Med., Kitasato Univ.*

Eukaryotic elongation factor 2 (eEF2) kinase (eEF2K) is a calmodulin-dependent protein kinase regulating protein translation through phosphorylation of eEF2. We previously demonstrated that eEF2K mediates development of systemic hypertension. We recently revealed that A484954, a selective eEF2K inhibitor induces vasorelaxation through activating smooth muscle inward rectifier K⁺ (K_{ir}) channel in rat isolated mesenteric artery. Here we further explored acute effects of A484954 on blood pressure (BP). BP was measured by a carotid cannulation method in rats. A484954 potentiated isoproterenol-induced decrease of diastolic BP. A484954 potentiated adrenaline-induced decrease of diastolic BP. In summary, we for the first time demonstrated that A484954 augments isoproterenol- and adrenaline-induced BP decrease perhaps through the activation of beta-2 receptor-K_{ir} channel.