Efficacy and Safety of Sildenafil in the Management of Pulmonary Hypertension in Mitral Valve Surgery

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Patients with chronic mitral valve disease are at risk of developing pulmonary hypertension (PH), which is an important risk factor for the development of acute right-sided heart failure during cardiac surgery. The management of PH ranges from non-selective vasodilators to drugs that specifically target pulmonary vasodilation, endothelial function, and vascular remodeling. Oral Sildenafil is a selective vasodilator that prolongs the action of cGMP by selective inhibition of phosphodiesterase enzyme (PDE) type 5 which is found abundantly in pulmonary endothelium, it has shown safety and efficacy in decreasing MPAP and PVR in patients with secondary PH undergoing mitral valve surgery with no or minimal effects on mean arterial blood pressure.