The acute hemodynamic effect of IV nitroglycerin and dipyridamole in patients with pulmonary arterial hypertension: comparison with IV epoprostenol.

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Nitroglycerin and dipyridamole are two commonly available and well tolerated vasoactive medications. Their acute hemodynamic effects in patients with pulmonary arterial hypertension are not well defined in the current literature. The authors retrospectively analyzed the acute hemodynamic effects of IV nitroglycerin, dipyridamole, and epoprostenol in 59 patients with pulmonary arterial hypertension as determined by changes from baseline in systemic and pulmonary hemodynamic parameters. Statistical analysis was performed using the independent sample t test. A p value <0.05 was considered significant. Nitroglycerin is predominantly a vasodilator of the pulmonary vasculature with moderate systemic vasodilator effect, while dipyridamole is primarily a positive inotropic agent. Epoprostenol is a potent vasodilator of both pulmonary and systemic vessels and a strong positive inotropic agent. Nitroglycerin and dipyridamole may be useful in the acute management of pulmonary arterial hypertension.

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