

Is the Lack of Respiratory Variation in Right Atrial Pressure Predictive of Right Ventricular Dysfunction and Worse Outcomes?

STUDY DESIGN

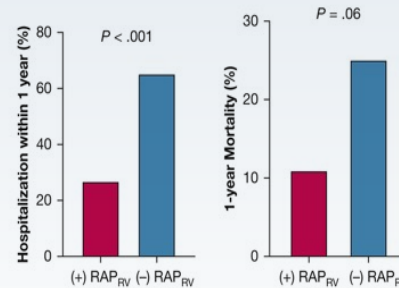
Retrospective review of right atrial pressure (RAP) tracings in **109 patients** with **precapillary pulmonary hypertension** (PH) who had undergone right heart catheterization

No meaningful change in RAP [(-) RAP] defined as <2 mm Hg (end expiratory – end inspiratory)

RESULTS

(-) RAP associated with

Poor clinical outcomes



Adverse hemodynamic parameters & right ventricular (RV) dysfunction



Cardiac index (indirect Fick)
 2.34 ± 0.09 vs 2.76 ± 0.1 L/min/m²,
 $P = .001$



Pulmonary vascular resistance
 8.9 ± 0.44 vs 6.1 ± 0.49 Wood units,
 $P < .0001$



RV dysfunction on echocardiogram
 87.3% vs 38.8% , $P < .0001$

The absence of respiratory variation in RAP was associated with worse pulmonary hemodynamics, RV dysfunction, and hospitalizations in patients with precapillary PH. Observing respiratory variation in RAP may help identify patients at higher risk of adverse events.