VASCULAR DISEASE

VASODILATOR RESPONSE PREDICTS LONG-TERM SURVIVAL IN PULMONARY HYPERTENSION REGARDLESS OF ETIOLOGY

ACC Oral Contributions
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Background: Pulmonary vasodilator response is routinely assessed in patients with idiopathic pulmonary arterial hypertension, but its role in other types of pulmonary hypertension (PH) and its ability to predict clinical outcomes is unclear. This study examined the impact of vasodilator responsiveness on survival in a diverse cohort of PH patients.

Methods: We performed a two-center prospective cohort study of 214 consecutive patients referred for invasive PH evaluation. Vasoreactivity was assessed during inhalation of 40 ppm nitric oxide (iNO).

Results: Mean age was 56±15 years, 71% were women, 68% were Evian Class I and WHO function class distribution was 31/52/18 (% II/III/IV). The mean pulmonary artery pressure (PAP) at baseline was 46±16 mm Hg and decreased by 14± 13% during iNO inhalation. During follow-up 60% of patients were treated with at least one PH-specific therapy and 17% received combination therapy. There were 50 deaths (25%) over a median follow-up period of 28 months. Responders were identified by at least 10% drop and mean PAP of <=40 mm Hg during iNO inhalation. Vasodilatory response predicted survival in patients with idiopathic and nonidiopathic PH (p=0.02 and p<0.001) as well as patients with Evian Class I and non-Class I PH (Classes 3, 4, and 5); p<0.001 and p=0.02.

Conclusions: Vasodilator response appears to be a critical method of risk stratification in all forms of PH, and vasodilator testing should be routinely performed in the initial evaluation regardless of PH etiology.