American Journal of the Medical Sciences:
POST AUTHOR CORRECTIONS, 28 June 2011
doi: 10.1097/MAJ.0b013e31821790f4
Review Article: PDF Only

Hyperthyroidism and Pulmonary Hypertension: An Important Association

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Published Ahead-of-Print

Abstract

Pulmonary hypertension is a complex disorder with multiple etiologies. The World Health Organization Group 5 (unclear multifactorial mechanisms) includes patients with thyroid disorders. The authors reviewed the literature on the association between hyperthyroidism and pulmonary hypertension and identified 20 publications reporting 164 patients with treatment outcomes. The systolic pulmonary artery (PA) pressures in these patients ranged from 28 to 78 mm Hg. They were treated with antithyroid medications, radioactive iodine and surgery. The mean pretherapy PA systolic pressure was 39 mm Hg; the mean posttreatment pressure was 30 mm Hg. Pulmonary hypertension should be considered in hyperthyroid patients with dyspnea. All patients with pulmonary hypertension should be screened for hyperthyroidism, because the treatment of hyperthyroidism can reduce PA pressures, potentially avoid the side-effects and costs with current therapies for pulmonary hypertension and limit the consequences of untreated hyperthyroidism. However, the long-term outcome in these patients is uncertain, and this issue needs more study. Changes in the pulmonary circulation and molecular regulators of vascular remodeling likely explain this association.