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★ FIT Clinical Decision Making

PLATYPNEA-ORTHODEOXIA SYNDROME: A RARE CAUSE OF UNEXPLAINED HYPOXIA

Poster Contributions
Poster Area, South Hall A1
Saturday, April 02, 2016, 3:45 p.m.-4:30 p.m.

Session Title: FIT Clinical Decision Making: Congenital Heart Disease, Valvular Heart Disease, Pulmonary Hypertension
Abstract Category: Congenital Heart Disease
Presentation Number: 1152-273

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Background: Platypnea-orthodeoxia (POD) is a rare syndrome described by dyspnea and hypoxemia while upright that improves on recumbence. It is associated with an intracardiac shunt, pulmonary AVM, ventilation-perfusion mismatch or a combination of these.

Case: A 53-year-old woman was referred for unexplained hypoxia. She had a history of COPD, Behcet’s disease, cryptogenic stroke, migraine and hiatal hernia s/p recent Nissen Fundoplication. She had exertional dyspnea for several months after surgery and was found to have oxygen saturation (SpO2) of 78% by pulse oximeter. She was treated with continuous nasal oxygen at 2 L/min.

Decision Making: PFTs showed mild airway disease. Chest x-ray and CT angiogram were unremarkable. The patient described dyspnea while upright with improvement on lying flat. Room air SpO2s were 96% while supine, 83% sitting, and 80% standing. A TTE bubble study revealed normal bi-ventricular size and function, but a large intracardiac shunt. A TEE confirmed a PFO. The patient underwent percutaneous PFO closure with a 30-mm Gore Cardioform device. One day post-closure SpO2s were 98% supine and 95% sitting. She completed a 6-minute walk test with minimal dyspnea. Post-closure ICE and TTE showed no residual shunting. She no longer required supplemental oxygen.

Conclusions: POD from a PFO is a rare cause of hypoxemia post-thoracic or upper abdominal surgery. In POD patients with a large intracardiac shunt, successful PFO closure may resolve symptomatic postural dyspnea and hypoxemia.

Table

	Supine (SpO2)	Sitting (SpO2)	Standing (SpO2)	6-minute walk test (SpO2)
Pre-PFO Closure	96%	83%	80%	78%*
Post-PFO Closure	98%	95%	95%	88%**
* Tolerated only first 30 seconds of 6-minute walk test				
** Tolerated full 6-minute walk test				