European Respiratory Society
Annual Congress 2012

Abstract Number: 457

Publication Number: P592

Abstract Group: 1.13. Clinical Problems - Other

Keyword 1: Hypoxia **Keyword 2:** Elderly **Keyword 3:** No keyword

Title: Platypnea-orthodeoxia syndrome precipitated by kypho-scoliosis: An unusual case of refractory hypoxia

Dr. Arun 3303 Khanna arunkhanna26@yahoo.com [1], Dr. David 3304 Reed david.reed@nhs.net [1], Dr. Gillian 3305 Lowrey gillian.lowrey@nhs.net MD [1] and Dr. Chris 3306 Whale chris.whale1@nhs.net MD [1]. [1] Respiratory Medicine, Derby Hospital NHS Trust, Derby, United Kingdom, DE22 3NE .

Body: Introduction: Platypnea-Orthodeoxia syndrome is caused by intra-cardiac, pulmomary arteriovenous or pulmonary parenchymal shunt. It's first clinical manifestation in an elderly lady as a result of 'unmasking' of a patent foramen ovale (PFO) attributable to her worsening kypho-scoliosis is a novel and poorly understood presentation. Case Summary: An 85 year old lady presented with breathlessness and hypoxia ($PaO_2$5.6kPa, $PaCO_2$5.2kPa, pH7.4).Clinical examination was normal apart from marked kypho-scoliosis. Her ECG, chest X-ray, High resolution chest CT, CT pulmonary Angiogram, Ventilation/Perfusion scans and Trans-thoracic ECHO were all within normal limits. In particular, she had normal pulmonary pressures. Her lung functions demonstrated a restrictive defect with a normal single-breath diffusion capacity of carbon monoxide. She subsequently exhibited orthodeoxia prompting a 'bubble' ECHO study. This revealed a large PFO with a prominent 'right to left' shunt, confirmed on Trans-oesophageal ECHO. Percutaneous transcathetar closure of the PFO returned her oxygen saturation to within normal limits enabling rehabilitation. Discussion: Symptomatic Platpynea-Orthodeoxia syndrome without pulmonary hypertension can be caused by altered intra-thoracic anatomy and physiology. It is postulated that kyphoscoliosis resulting in right atrial compression and alteration to caval flow may result in 'right to left' shunt unmasking a 'silent' PFO. PFO's, occurring in 10-20% of adults, are largely asymptomatic. However, with a growing geriatric population and increasing incidence of spinal deformities such curable possibilities must be included in differentials of otherwise unexplained hypoxia.