

## A RARE CASE OF PLATYPNEA-ORTHODEOXIA SYNDROME, MASQUERADING AS ACUTE RESPIRATORY FAILURE.

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### Case vignettes

**Background-** Platypnea–orthodexia syndrome (POS) is rare condition that presents as positional dyspnea and hypoxia which improves with recumbency. Etiologies can be broadly classified into intracardiac or extra cardiac shunts. We hereby present a case of POS manifesting as respiratory failure.

**Case:** - A 71-year-old male with past medical history of environmental exposure to chemicals, myocardial infarction, cryptogenic CVA with no residual deficits, hypertension, hyperlipidemia, presented to an outside facility with dry cough and worsening shortness of breath for 6 weeks. Patient underwent extensive workup for cause of shortness of breath – EKG was unchanged from prior, infectious workup was negative, a CT of the chest showed interstitial ground glass opacities and patient was treated with steroids in light of exposure to industrial chemicals for possible interstitial pneumonitis. Despite multiple therapeutic modalities patient continued to deteriorate with worsening hypoxia and was transferred to our hospital. Patient had a transthoracic and transesophageal echocardiogram which showed normal biventricular function and chamber size, but demonstrated patent foramen ovale, an atrial septal aneurysm with right to left shunt worsening in upright position consistent with platypnea orthodexia syndrome. A right heart catheterization showed normal filling pressures. Patient underwent percutaneous closure of the PFO with 30mm Gore Cardioform device. Immediately after closure, he had complete resolution of his symptoms and improvement in oxygen saturation back to normal.

**Discussion** –POS is a rare cause of respiratory failure in adults, characterized by orthostatic oxygen desaturation. The precise mechanism of shunting through PFO related to position remains unclear. Early diagnosis and treatment of POS is crucial as it can be managed with simple percutaneous modalities (effective in >95% patients) which can be lifesaving.

**Conclusion :** This is a case highlights the importance of having a high index of suspicion for this anomaly even in adult population so that definitive treatment can be instituted.

