

## **SEVERE PULMONARY ARTERIAL HYPERTENSION IN MEDIASTINAL LARGE B-CELL LYMPHOMA**

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**BACKGROUND:** Mediastinal large B-cell lymphoma (MLBCL) is a distinct subtype of diffuse large B-cell lymphoma that is highly aggressive and usually presents with compressive symptoms. We describe a patient with invasion of MLBCL into the pulmonary vasculature, causing severe pulmonary arterial hypertension and leading to recurrent syncope.

**CASE REPORT:** A 32-year-old Caucasian male presented with recurrent syncope, exertional dizziness, generalized malaise, fatigue and weight loss. On examination, he had an elevated jugular venous pulse with a prominent 'v' wave. Cardiac exam revealed a pansystolic ejection murmur heard all over the precordium and loudest at the inferior right sternal margin. Laboratory studies showed a white cell count of 8,000/mm<sup>3</sup> with 87% segmented neutrophils, 10% lymphocytes and 3% monocytes; hemoglobin of 15.3 gm/dl; hematocrit of 44%; and platelet count of 205,000/uL. A chest radiograph revealed a large left aortopulmonary window with a left hilar mass. Computed tomography imaging revealed a large mass in the middle and superior mediastinum measuring 9.5 cm x 10 cm at its greatest dimension. The mass was engulfing the aortic arch, the main pulmonary artery, and the right and left pulmonary arteries, causing significant narrowing. The inferior vena cava was dilated. A small pericardial effusion was also noted. There was no extra-thoracic lymphadenopathy. Echocardiography revealed severe pulmonary arterial hypertension with a calculated pulmonary arterial pressure of 124 mm of Hg, severe dilatation of right atrium and right ventricle, severe tricuspid regurgitation and mild pericardial effusion without signs of tamponade. Computed tomography-guided core biopsy led to a diagnosis of MLBCL. The patient is currently receiving chemotherapy.

**DISCUSSION/CONCLUSIONS:** Mediastinal masses should be considered in the differential diagnosis of young adults with symptoms and signs of pulmonary arterial hypertension.

**Keyword:** Pulmonary Arterial Hypertension, Mediastinal Masses, Syncope