A Prolonged, Refractory Case of Asthma? Maybe Not.
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**Introduction**
Subaortic stenosis may present with dyspnea worsened with exertion and symptomatic systolic murmurs should warrant a thorough cardiac evaluation.

**Case Report**
A 47-yo female began experiencing weakness, cough, and fatigue 6 months prior to presentation. She was seen by her PCP who diagnosed her with bronchitis and prescribed her antibiotics but this did not relieve her fatigue, and she presented to her PCP 3 months later with similar symptoms but a worsening of her shortness of breath. She was diagnosed with an asthma exacerbation and given long-acting beta agonists and inhaled corticosteroids for treatment. At that time she had deteriorated from a baseline functional ability of no impairment to an inability to walk more than 50 feet without dyspnea. She continued to clinically deteriorate, with constant weakness, dyspnea with any activities of daily living, and had failed two further treatment courses of oral glucocorticoid therapy. She presented then to the hospital for further evaluation and treatment of her persistent weakness and dyspnea. She admitted to an unintentional 50-pound weight loss, an inability to sleep due to her dyspnea, all despite using her albuterol inhaler 6 to 7 times per day – proper use of the inhaler was noted at that time. The patient also remarked about a cardiac murmur as a child, but denied any other cardiac history. She admitted to a 3-pack-year smoking history 9 years prior and a history of incarceration but no other prior history.

**Case Report (cont.)**
Examination revealed a grade III/VI midsystolic crescendo-decrescendo murmur located at the right 2nd intercostal space without radiation to the carotids. Laboratory studies were normal and chest radiography revealed cardiomegaly. Transthoracic echocardiography revealed a thick, circumferential subaortic membrane approximately 8mm below the aortic valve. She was referred for cardiothoracic surgery, and was discovered intraoperatively to have a fibrous subaortic membrane with muscular asymmetry of the septum. She successfully underwent resection of the subvalvular aortic ring with myectomy of ventricular septum, which pathology indentified as fibrous material with muscular involvement.

**Echocardiogram**
Enlarged view of a transthoracic echo showing a thick membrane in the aortic valve outflow tract

**Discussion**
Subaortic stenosis is the second most common form of aortic stenosis and is presumed to be due to a left ventricular outflow tract obstruction, in which turbulent flow leads to progressive fibrosis and worsening symptoms.

**References**
Brown DW, Keane JF. Subvalvar aortic stenosis (subaortic stenosis). In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2012.