

Chordae Tendinae Rupture in A Patient with Acromegaly

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Introduction

The common cardiovascular complication in patients with Acromegaly is Cardiomyopathy secondary to excess Growth Hormone (GH) and Insulin like Growth Factor 1 (IGF-1), correlating proportionately with

disease duration. This has been explained in various articles as a cumulative effect of disease process and acromegalic cardiomyopathy as a leading cause of death in patients with this condition.

Chordae tendinae rupture is a rare cardiovascular complication in patients with Acromegaly. As far as we are aware only two cases have been reported so far, in 1990 and in 1985. Not much of a study has taken place in this area and not much of an explanation has been obtained as to the mechanism of papillary muscle rupture.

Here we present a patient with Acromegaly associated with chordae tendinae rupture which was successfully managed with a valve replacement.

Case presentation

A 72yr old gentleman with a background of Type 2 Diabetes, Hypertension and Acromegaly presented with exertional dyspnoea of few weeks duration and was found to be in decompensated heart failure on hospital admission. He was diuresed and a transthoracic echocardiogram (TTE) was performed. The images were suboptimal due to high body mass and showed dilated left ventricular cavity size with mild concentric hypertrophy and dynamic function. The report mentioned morphologically normal mitral valve leaflets with mild eccentric regurgitation. As the patient went into flash pulmonary oedema on two occasions requiring optiflow, further investigations were performed to investigate the causes. A troponin

was only mildly raised and a CT pulmonary angiography ruled out pulmonary embolus. Blood cultures did not yield any growth.

As the patient was clinically not making any improvement a review of our differential diagnoses were called for.

A repeat TTE was obtained which this time showed better quality images and a clear rupture chordae tendinae causing prolapse of the posterior mitral valve leaflet and severe posteriorly directed regurgitation. He was discussed with surgeons and underwent a mitral valve replacement. A diagnostic angiogram showed no evidence of coronary disease.

Key points

1. TTE is immensely helpful in arriving at a diagnosis in patients with structural heart disease.
2. It is important to re review the case scenario and clinical findings and correlate with other medical conditions to assess for any contributing factors.
3. Acromegalic cardiomyopathy is a known condition, very little is known of the condition to lead to valvular disease especially chordae tendinae rupture.

