Resolution of idiopathic cardiomyopathy with medical weight loss; A case of Adipositas Cordis?

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Introduction and Background; Obesity is highly prevalent and associated with comorbidities that increase cardiovascular risk including hypertension (Htn), diabetes (DM), hyperlipidemia (Hl) and obstructive sleep apnea (OSA). Some cases of idiopathic heart failure presumed due to a distinct “obesity “ cardiomyopathy (OCM) also called adipositas Cordis (AC) have however also been described.

Methods and Rationale; We present the case of a patient with recurrent CHF presumed secondary to idiopathic cardiomyopathy (ICM) with morbid obesity (MO) which resolved following marked weight loss.

Results and Clinical Case Summary; A 49 yr old African American Lady was referred for management of MO and possible bariatric surgery. Amongst comorbidities she has are Htn, prediabetes (pDM), and OSA. Her past medical history includes prior history of CHf in the setting of major anemia following fibroid related uterine hemorrhage. Early during the course of her enrollment in a multidisciplinary weight management program she had a bout of congestive heart failure associated with pulmonary embolism and ICM confirmed echocardiographically. Her initial weight was 423.6lbs, BMI 60.8. Following 8mths of a multifaceted medical weight loss program including lifestyle and dietary counseling with topimarate, she has reached a current weight of 349lbs, BMI 51.5. Her follow up echocardiography shows resolution of the prior findings of ICM and she is now being prepared for definitive bariatric surgery.

Discussion; While the patient has multiple comorbidities, the negative cardiac catheterization, well controlled BP, stable hematocrit and OSA suggested an idiopathic etiology for the patients CHF. The finding of increased fatty attenuation of the myocardium on cardiac MRI, associated MO and marked improvement following weight loss suggest AC as the underlying etiology of the patient’s ICM.

Summary and Conclusions; Morbid Obesity may be associated with ectopic fatty infiltration of cardiac myocytes with resulting functional and structural anomalies that can cause CHF. These can be improved by significant weight loss achieved medically or surgically. Our Case summary shows the importance of weight loss efforts in patients with obesity and ICM.