Obesity effects on hemodynamics and cv structure and function.

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Obesity (Excessive adipose accumulation) is associated with various comorbidities including, Type ll diabetes mellitus, hypertension, sleep disorders, cancers etc. is increasing day by day in both children and adults. It has a major impact on Cardiovascular Diseases (CD), such as Coronary Heart Disease (CHD), Heart Failure (HF) and strokes associated with low survival. It has been observed that overweight or obese people established with different CV disease including HF, CHD have a better prognosis as compared with non-obese or non-overweight people. Obesity has various adverse effects on CV structure, function and hemodynamics, which is shown in the Figure 1. Obesity leads to increase in accumulation of adipose tissue, blood volume, LV stroke volume, cardiac output, LV enlargement which provide stress on LV wall which further leads to failure of LV by adequately/inadequately dysfunction of LV diastolic and systolic. Workload and output of cardiac are greater in the obese patient but with a lower level of arterial pressure at lower peripheral resistance. The heart rate is typically increased mildly. The obese patients are more likely affected to be in hypertension than non-obese and arterial pressure is also associated with increased weight. Chamber dilation of left ventricular developed with an increase in filling pressure and volume in obese patients.

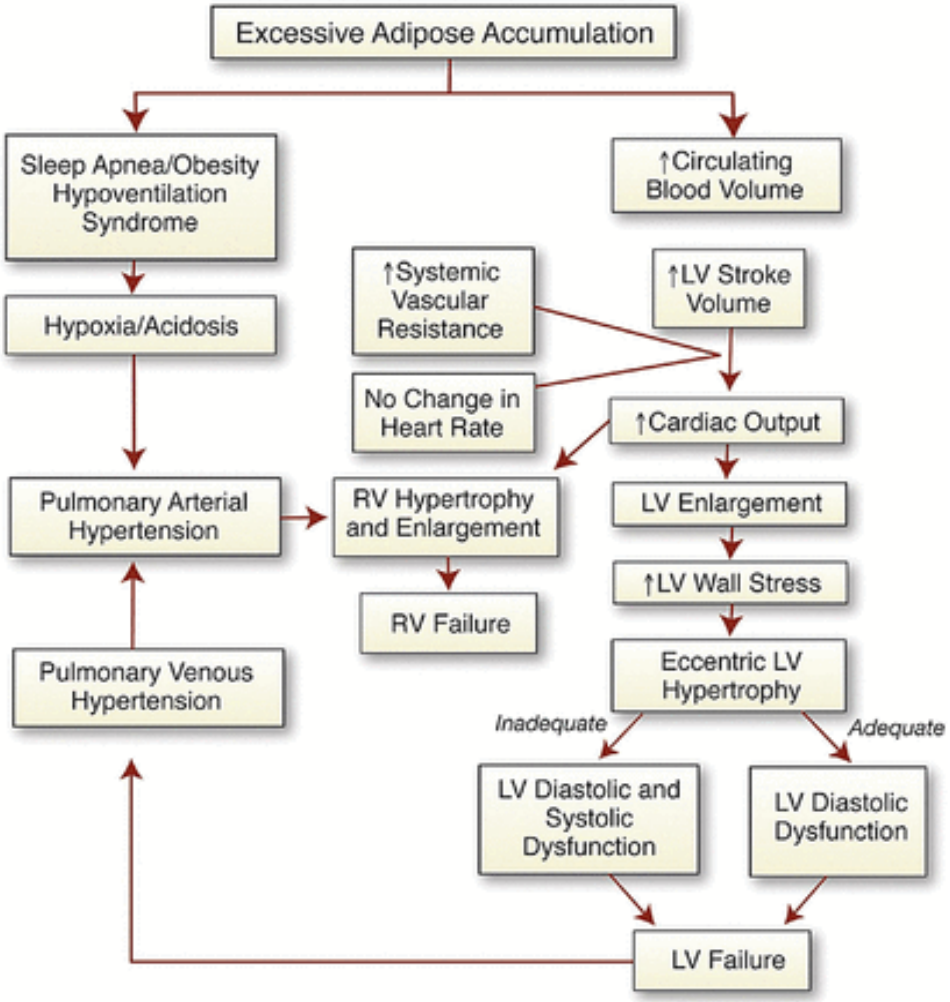

Figure 1. *Pathophysiology of Obesity and Cardiomyopathy. LV: Left Ventricular; RV: Right Ventricular.*

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