Benefits of Obesity Treatment for Patients with Cardiovascular Disease

Obesity significantly increases the risk of both arterial and venous diseases. The incidence of coronary heart disease (CHD), congestive heart failure (CHF), stroke, atrial fibrillation (AF), and deep venous thrombosis (DVT) increases with increasing BMI. The relationship of obesity to CHD and stroke is probably mediated through traditional risk factors such as dyslipidemias, insulin resistance (IR), and hypertension, as well as novel factors such as increased systemic inflammation and AF.

Dyslipidemias, insulin resistance and CHF are further linked through the concept of "lipotoxicity," which suggests that triglyceride accumulation in the liver (nonalcoholic fatty liver disease — NAFLD), in muscle (especially cardiac myocytes) and the pancreatic beta cell lead to hepatic IR, decreased myocardial function and loss of beta cell insulin release¹. Recently, a cardiac MRI study of obese adolescents showed significant alterations in myocardial tissue architecture (increased interstitial matrix) that resulted in diastolic dysfunction; this finding correlated with IR and high hs-CRP.²

Significant weight loss has been shown to reduce blood pressure, improve insulin sensitivity and lipids — all of which should have an important benefit on cardiovascular risk.

The safety of a Very Low Calorie Diet (VLCD) has been demonstrated in patients with established heart disease as well as in patients who have many of the above risk factors.

Benefits of Treatment

Significant weight loss from a VLCD can have a benefit on both systolic and diastolic cardiac function, especially in patients with NYHA Class II/III heart failure. This may result from improved myocardial contractility (by reduced lipotoxicity, as described above) as well as from reduced systolic and mean arterial blood pressure. Weight loss will also improve the risk for initial or recurrent lower extremity DVT, improve claudication symptoms from PAD, and reduce the risk for atrial fibrillation by improving obstructive sleep apnea.

About Robard Corporation

Treating the chronic disease of obesity is a nationally accepted plan of care affecting cardiovascular disease, diabetes, hypertension, high cholesterol, orthopedic stresses, and some cancers. In fact, the American Heart Association, American College of Cardiology, and The Obesity Society recently published their findings on the importance of treating obesity and suggest a sense of urgency. These are similar guidelines to what the U.S. Preventive Services Task Force supports.

Robard Corporation

Leaders in Weight Management 800.222.9201 | www.Robard.com © 2016 Robard Corporation Robard provides all the resources needed to help you provide obesity treatment within your practice. We are comprehensive weight management experts, offering proven medical obesity treatment guidelines, a line of nutritionally complete, high-quality protein meal replacements and supplements, and executive level business management assistance.

Robard offers a suite of complimentary practice enhancement services, including:

- Comprehensive medical protocols
- In-person and online staff training
- Patient education and engagement materials
- Insurance coding and billing assistance
- Business growth support for the lifetime of our relationship

... All the help you need to implement a program within 30 to 60 days to treat obesity and its associated medical conditions.

For further information, contact one of our experienced Business Development Managers by calling 800.222.9201. Or visit us online at *www.Robard.com*.

References

- 1. Jonathan M. McGavock, PhD; Ronald G. Victor, MD; Roger H. Unger, MD; and Lidia S. Szczepaniak, PhD1. Adiposity of the Heart*, Revisited. Annuals of Internal Medicine 2006;144:517.
- Shah RV, Abbasi SA, Neilan TG, Hulten E, Coelho-Filho O, Hoppin A, Levitsky L, de Ferranti S, Rhodes ET, Traum A, Goodman E, Feng H, Heydari B, Harris WS, Hoefner DM, McConnell JP, Seethamraju R, Rickers C, Kwong RY, Jerosch-Herold M. Myocardial tissue remodeling in adolescent obesity. J Am Heart Assoc 2013;2:e000279 doi:10.1161/JAHA.113.000279.
- 3. Peterson LR, Waggoner AD, Schectman KB, et al. Alterations in left ventricular structure and function in young healthy obese women: assessment by echocardiography and tissue Doppler imaging. American College of Cardiology 2004;43:1399–404.
- 4. Very-Low-Calorie Diet Improves Diabetic Heart Function. Radiological Society of North America 2011; abstract SSE04-06.
- 5. von Bibra H, Wulf G, Pfützner A, Schumm-Draeger P-M. A low glycemic/insulinemic diet improves diastolic cardiac function and metabolic syndrome more than the traditional low-fat diet in overweight patients with type 2 diabetes. Pre-diabetes and the Metabolic Syndrome 2013 Congress; April 19, 2013; Vienna, Austria. Abstract 852.



Leaders in Weight Management 800.222.9201 | www.Robard.com © 2016 Robard Corporation