**DILATED CARDIOMYOPATHY INDUCED BY CHRONIC STARVATION AND SELENIUM DEFICIENCY**

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A fourteen year old male from South America was transferred to the burn unit at our institution. The patient had second-degree burns (>25% BSA) two years prior to admission. He was inappropriately managed in his home country and developed severe muscle wasting. He was severely malnourished with a weight of 19 kg [BMI 9.6 kg/m2, z score -13.1] because of poverty. Initial evaluation revealed severe cachexia and absent peripheral edema consistent with the diagnosis of marasmus. Additionally, he experienced shortness of breath with minimal physical activity. Initial labs were positive for severe hypoalbuminemia [0.2 g/dl], hypocalcaemia [3.2 mg/dl], selenium deficiency [32 ug/dl (NL 50-150 ug/L)], severe iron deficiency anemia [hemoglobin/hematocrit 6.7gm/dl/24.8%, MCV 69.3 FL] and a normal carnitine level. An initial echocardiogram (echo) showed a globular dilated left ventricle with a severely depressed systolic function [ejection fraction (EF) < 25%] consistent with congestive heart failure. At that time, he was treated with furosemide, enalapril and carvedilol. High caloric enteral nutrition was administered via a nasogastric tube with the addition of selenium [200 mcg twice daily]. He also received two blood transfusions and repeated albumin infusions within the first five days. Within one week, his cardiac function dramatically improved [EF 46%]. His selenium level, as well as other labs, normalized within two weeks. The cardiac function normalized within four weeks. His weight continued to increase, and reached 28 kg [BMI 14.1 kg/m2, z score -3.79] within three months. All cardiac medications were then discontinued and the patient’s stamina continues to improve. We report a rare case of dilated cardiomyopathy caused by severe protein energy malnutrition combined with selenium deficiency in a teenage boy.