Article

Response of Ischemic Heart Disease To Chondroitin Sulfate

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One hundred and twenty patients with demonstrable ischemic heart disease (IHD) or coronary heart disease (CHD)—suggested designation, ischemic coronary disease (ICD)—were divided into two groups of 60 patients each and observed for a study period of two and a half years. Treatment was randomly assigned, and comparisons were made on the basis of clinical evaluation and mortality and morbidity rates. Sixty patients were treated with the acid mucopolysaccharide, chondroitin sulfate- A (CSA), in addition to regular medicinal and dietary regimens. Sixty comparable patients serving as controls were not given CSA, but otherwise were treated under similar dietary and medicinal regimens. CSA was given orally in tablet form; the initial dosage of 10 gm daily was reduced to 1.5 gm daily, and was well tolerated by all patients. No abnormal laboratory or clinical findings and no toxicity or side effects from CSA were noted.

At the end of the 2.5- year observation period, 21 of the 60 ICD patients in the control group had experienced acute cardiac episodes or myocardial ischemia; of these, 4 were fatal. The 17 survivors were hospitalized—7 with myocardial infarction, 7 with acute myocardial ischemia or coronary insufficiency, and 3 with non- critical or transient myocardial ischemia. In the matched CSA- treated group of 60 ICD patients, there were 5 deaths. Autopsies were conducted in all cases. One patient with myocardial ischemia died from a myocardial infarction. A second patient who died from myocardial infarction had persistent hypertension which often was difficult to control. A third patient, who had chronic atrial fibrillation and flutter, died from coronary insufficiency and cardiac congestive failure following a massive cerebrovascular hemorrhage. Two other patients died from non- cardiac causes—one from a malignant cerebral astrocytoma, and the other from a skull injury which induced ventricular fibrillation. The surviving 55 patients of this group have not required treatment or hospital admission for acute cardiac symptoms or recurrent cardiac illness.

The ratio of 21:3 for coronary episodes in the CSA group versus the non- CSA group warrants further studies with said mucopolysaccharides such as CSA and CSC. This would involve statistically designed and controlled studies on large groups of patients and possibly on sections of the normal adult population. These data could be invaluable in determining the feasibility of the therapeutic use of acid mucopolysaccharides for the prevention and treatment of ischemic coronary disease.