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Dr. Henry Blackburn  
Professor and Director  
University of Minnesota  
Laboratory of Physiological Hygiene  
School of Public Health  
Stadium Gate 27  
Minneapolis, Minnesota 55455

Dear Dr. Blackburn:

Thank you very much for your letter of July 11 and for sending me a copy of the remarks attributed to me by the Missouri Egg Merchandising Council. Some of the information is taken out of context of the entire presentation, and some of the statements are incorrectly attributed to me.

I should like to consider the specific issues which you raised in your letter. With regard to plasma cholesterol, I am in complete agreement that hypercholesterolemia is a significant risk factor in patients who have high blood cholesterol levels. Persons with inherited hypercholesterolemia secondary to type II hyperlipidemia are particularly predisposed to the development of early arteriosclerosis. Retrospective analysis of the Framingham data appears to show that cholesterol is a graded risk factor. However, I think that neither you, I, nor anyone else is in a position at this time to say what is a safe level of plasma cholesterol.

It should be perfectly obvious, too, that the good people of Kansas City have little interest in the level of blood cholesterol in Japan. I have no quarrel over the fact that plasma cholesterols are considerably lower in many Asian and African countries where the incidence of arteriosclerosis is low. The remarks of mine which you question deal with diet and cardiovascular disease. The link between these two, we think, is the effect of diet on the concentration of plasma lipids. Strict application of the Prudent American Heart diet produces an average drop in the plasma cholesterol of most Americans of only about 15%. The experience from the National Heart and Lung Institute has been that in patients with type II hyperlipidemia who are placed on a restricted type of low cholesterol-high P/S ratio diet after a period of years show only an average reduction of approximately 10% in the levels of plasma cholesterol and beta lipoprotein cholesterol.

Granted that such reductions are possible with diet, referral to the Framingham statistics would lead one to the conclusion that the accompanying decrease in incidence of coronary artery disease would be in the neighborhood of 20-25%. Of course, there is quite a difference between predicting a phenomenon from retrospective analysis and actually demonstrating it. A diet-heart trial would be required in order to demonstrate this point. Be that as it may, the point I wish to make is that even with adherence to the strictest kind of diet, the level of plasma cholesterol practicably obtainable within our society would still be considerably above that in many Asian and African populations. Therefore, your comments concerning the levels of cholesterol in Japan are entirely inapplicable with regard to anything that can be realistically accomplished by adding or taking away eggs from the diet of the population of Kansas City.

The general tone of your letter seems to presume knowledge which is not currently available. For example, if we knew that lowering of plasma cholesterol would definitely decrease the incidence of coronary artery disease, then the type II Primary Prevention Trial and the Multirisk Intervention Trial of the National Heart and Lung Institute, in which I believe your University is participating, would be unethical. The consensus of the Task Force on Arteriosclerosis of the National Heart and Lung Institute was, I believe, that we do not yet know whether lowering plasma cholesterol will in fact decrease the risk of developing arteriosclerosis or its complications.

Finally, let me turn to the question of my own group of subjects with arteriosclerosis whom I have been studying at the Methodist Hospital for 25 years. I have never claimed that they are representative of the general population in this country. They do represent all known clinical manifestations and presentations of the disease complex we refer to as arteriosclerosis. Over the years, I have observed that the levels of plasma cholesterol in these subjects are not greatly different from other patients at the hospital without arteriosclerosis. I have never said that hypercholesterolemia was not important as a risk factor in some of the patients. I have also never stated that hyperlipidemia or hypertriglyceridemia was not important as a risk factor. In a study of several thousands of my patients since he came to the Methodist Hospital, Dr. Antonio M. Gotto has found that if NHLI criteria for defining hyperlipidemia are applied, only about 5% of my patients have type II while perhaps 30-40% have type IV hyperlipoproteinemia. We treat all such patients with specific dietary programs and in some instances with drugs as well in an attempt to control the hyperlipidemia. We do not know, and will not know for perhaps a number of years, for certain whether or not such treatment is beneficial in these patients. The 95% of my patients who do not have hypercholesterolemia and type II hyperlipidemia are not placed on a type II diet. If they are overweight, we recommend caloric restriction; if they have one of the other types of hyperlipidemia, we recommend the appropriate diet for that specific type. This, I believe, is a reasonable approach and is consistent with the general consensus of information concerning the etiology and treatment of arteriosclerosis as it exists at the present time.

As for the general population of this country, neither I, or my colleagues, nor the National Heart and Lung Institute are recommending the diets for hyperlipidemia until we have some evidence that such diets, in our society, will protect against arteriosclerosis. I do not wish to recommend to the general population of the United States, regardless of whether their cholesterol are 100 or 200 mg%, that they stop eating eggs at this time. We do, of course, restrict eggs in patients with hypercholesterolemia.

I hope that this statement concerning my opinions and approach to the question of diet and arteriosclerosis will clear up any misunderstandings you may have had concerning the attached statements from the Missouri Egg Merchandising Council and will help you to understand our approach to this disease at Baylor and The Methodist Hospital.

I thank you for calling the flyer to my attention, and for your interest in my opinions.

Yours sincerely,



Michael E. DeBakey, M.D.  
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