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The Heart of the Matter: Alternative Views on Heart and Vascular Disease

Andrew Rader, LAc, MS

By any measurement, heart disease is a major killer in our culture. In 2004, the latest year for statistics, coronary heart disease caused 452,300 deaths, the single leading cause of death in the United States. There are 15,800,000 people who are alive today with a history of heart attack and/or angina pectoris. This is according to the American Heart Association. It is no small issue and, unfortunately, the prevailing wisdom is that cholesterol is the major culprit. Statins are the drug of choice for prevention of heart disease, based on this questionable theory. The U.S. Agency for Health Care Research and Quality (AHRQ) reports that the proportion of Medicare patients over the age of 65 using statins more than doubled between 1997 and 2002, to more than 30 percent. Given that statins have serious side effects and do not affect mortality advantageously, we must offer an alternative that works.

A significant percentage of people who have cardiovascular events do not have the standard warning signs, such as high cholesterol, hypertension or obesity, so there must be something else at play. I will describe two alternative explanations for cardiovascular disease (CVD) in the language of Western physiology and then demonstrate how these two theories jibe with Chinese medicine's understanding of cardiovascular disease.

Theory One

Hyperinsulemia and inflammation are at the root of cardiovascular disease. Ron Rosedale, MD, among others, explains that elevated insulin levels is the main cause of heart and vascular disease. I have addressed this in previous articles. The underlying problem is inflammation, caused by high levels of sugars glycating, especially fructose and galactose, which damages the vascular walls. High levels of sugar also trigger a release of insulin, which causes a host of cascading events. Cholesterol is signaled to oxidize, which damages the lining of the arteries. Liver metabolism also is shifted to create an imbalance with HDL and LDL. When arterial walls are damaged from oxidized cholesterol, a signal is sent to repair the damage. This is inflammation. Arteries constrict, blood must clot, white blood cells are called in to clean up the mess, and new cells must be created. Scarring occurs, which is called plaque. The additive events of thickened blood, constriction of arteries and scarring lead to hypertension, which further accelerates the process leading to heart attacks and strokes.

Cholesterol has been tagged as the bad actor. In this scenario, cholesterol is a result of the need to repair the damaged arterial wall. Cholesterol is necessary for normal cellular function. In fact, without cholesterol, cell membranes would fall apart. It is a vital ingredient for cell repair and cell regeneration. Cholesterol also is the precursor to all of the steroid hormones, such as testosterone, estrogen, cortisone and many more. In fact, lowering cholesterol too much, in the range currently recommended, is correlated with an increased risk of dying, most likely by cancer. Blaming cholesterol for CVD is like blaming firefighters for fires.

Theory Two

Ascorbate (vitamin C) deficiency is the primary cause of human CVD. Linus Pauling, PhD, and Matthias Rath, MD, put forward a very compelling mechanism for vascular disease to which it is worth paying attention. Premature CVD essentially is unheard of in animal species that produce high amounts of endogenous ascorbate. The ancestors to humans lost the ability to produce ascorbate endogenously about 40 million years ago. This happened in the tropics where the abundance of fruits and other plants that contained enough dietary ascorbate enabled the ancestors to survive this mutation. When humans migrated north and the diet became deficient in ascorbate, scurvy became a major cause of illness. Because ascorbate is necessary for healthy connective tissue, the vascular wall's integrity was prone to damage and became porous, allowing blood to leak out. Perivascular bleeding is one of the first clinical signs of scurvy. Pauling and Rath believe that scurvy became one of the greatest threats to the evolutionary survival of man. Countermeasures had to evolve to correct this vascular damage. When dietary ascorbate became severely deficient, as evidenced by the early explorers sailing the seas, scurvy became deadly.

If ascorbate is moderately low, a need arises to shore up the arterial walls, due to the degradation of connective tissue. Thus, low ascorbate induces vasoconstriction and the deposition of lipoproteins, proteins and lipids to thicken the weakened wall and prevent blood leakage. It is noteworthy that ascorbate levels are inversely correlated with LDL, lipoprotein A and VLDLs, while HDL and ascorbate are directly correlated. HDL brings cholesterol back to the liver from the arteries. This is why LP(a) is an important prognostic indicator for vascular disease; it is one of the main repair molecules shoring up the leaking arterial walls.

In either scenario, cholesterol is not the villain. High cholesterol might be a symptom of an underlying problem, in which case, the true cause needs to be determined and addressed. Remember that correlation is not cause. Grey hair, which correlates highly with old age, does not cause old age.

Chinese Medicine View

Let's look at the Chinese medicine view. Heart disease and vascular disease, when it has progressed to the point of chest pain, is called "Chest Bi" or "Chest painful obstruction." It is referred to in the *Nei Jing,* but Zhang Zhong Jing coined the term "chest painful obstruction" in essential prescriptions from the golden cabinet.

There are three main categories of etiology. External factors are mainly from cold. Diet, such as excessive cold, sweet and fatty foods, injure the spleen and stomach, causing phlegm formation, which leads to obstruction of blood and *qi.* Cold food and drink will compound the issue. Emotional disturbance will disrupt function and, depending on the nature of the emotional picture, may produce wind or fire from the liver, phlegm from the spleen or lungs, cold from the kidneys and/or fire from the heart. Eventually, it will turn again into phlegm obstructing the blood and *qi* flow in the chest. There is a combination of deficiency and excess that leads toward ultimate chest pain. The deficiency in spleen, lung or kidney leads to poor fluid transformation and internal cold, which leads to phlegm. Deficient heart yang cannot move the blood. Phlegm and blood stasis lead to excessive obstruction.

These explanations do not conflict with the insulin and ascorbate theories. They coexist. The ascorbate deficiency, a dietary source, leads to obstruction as a compensatory process. Similarly, the insulin picture is dietary in nature and also creates a compensatory process that leads again to obstruction.

We can immediately make safe recommendations such as avoiding cold foods and fluids that constrict the vessels in the chest. This is sound, logical advice that people can immediately grasp. We all know that exercise will increase the body's ability to move blood and *qi*. We know that bringing down consumption of simple carbohydrates will only be beneficial. Making fruits and vegetables the largest percentage of the diet will increase ascorbate levels, as well as increase the amounts of fiber, phytonutrients and minerals that we need to function properly. It also decreases the amounts of foods that increase phlegm, such as sweets, fats and dairy.

Is there any harm in taking care of our emotional and spiritual lives? This can only lead toward a positive outcome. I want to emphasize the importance of working on the emotional aspect, as it might be the most powerful force at work here. The emotional body affects us on all levels, and we must encourage a focus on this area, as much as we might suggest dietary and other lifestyle changes. Western science also is now seeing how negative emotional states affect biomarkers that suggest inflammation and weakened immunity.

So, here is what we, as alternative health care practitioners, are up against. Given the problem of CVD, people are offered a solution. Billions of dollars are spent marketing this solution directly to consumers. The solution is to take a pill, exercise and eat properly - but take that pill.

We, as alternative health care providers, are asking folks to change how they live their lives. One choice, the pill, is straightforward, simple to understand and easy to do. The problem is cholesterol, and the solution is to lower it with a drug. The alternative to this paradigm is more complicated, has more variables at play, and is much more difficult to actualize. We live in a medically dominated world, but that world is beginning to crumble. The public is beginning to understand the pitfalls of the pharmaceutical path and is open to hearing what we have to say. People also are willing to make changes in their lives when they experience tangible results. We have much to offer in the realm of treating cardiovascular disorders and can be of considerable benefit.

Vive la medecine de Chinois!!!

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