The Yin and Yang of Cholesterol Hyperlipidemia

By Andy Rosenfarb, LAc, MTOM

I am writing this article to share my research and understanding of hyperlipidemia. The statin drugs that are used to lower cholesterol are, by far, the most profitable drugs produced by the pharmaceutical companies. These drugs generate nearly $20 billion in annual revenues.

Consider the efforts that would be taken to conceal the serious health risks associated with taking these kinds of medications. Statins list side effects including: cardiomyopathy, congestive heart failure and rhabdomyolysis. These are fatal side effects. Could there be another way to help people lower cholesterol without the possible and unfortunate side effect of death?

First, let’s attempt to gain a better understanding about high cholesterol and potential risk factors on the body. When looking at lipid panel (cholesterol test) results, you will see a few values: total cholesterol, HDL (high-density lipoprotein), LDL (low-density lipoprotein), triglyceride, cholesterol/HDL ratio, and LDL/HDL. HDL is the "good fat" and LDL is the "bad fat." These numbers are important when evaluating potential health risks associated with elevated blood lipids. The range of lipid values (high or low) is of secondary importance to the level of oxidation in the body.

Here are the current medical guidelines for cholesterol:

<table>
<thead>
<tr>
<th>Lipid</th>
<th>Desirable</th>
<th>Borderline</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol</td>
<td>&lt;200</td>
<td>200-239</td>
<td>&gt;240</td>
</tr>
<tr>
<td>LDL</td>
<td>&lt;130</td>
<td>131-159</td>
<td>&gt;160</td>
</tr>
<tr>
<td>HDL</td>
<td>&gt;45</td>
<td>35-45</td>
<td>&lt;35</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>&lt;150</td>
<td>150-500</td>
<td>&gt;500</td>
</tr>
</tbody>
</table>

In TCM, elevated blood lipids can come from both yin-excess metabolic patterns and yang-excess metabolic patterns. Yin patterns will present with high cholesterol due to excess sterol lipids in the body, which reflect in the high blood lipid numbers.
In cases of *yang* patterns, people are *yin*-deficient and the body is struggling to maintain normal blood-lipid levels, in an attempt to maintain homeostasis. The lipids are being stripped from every part of the body so the blood will have enough for cellular metabolic processes.

*Yin*-hyperlipidemia (excess *yin*) is relatively safer than *yang*-hyperlipidemia (*yin*-deficient). The *yin* condition will respond well to PUFA (polyunsaturated fatty acids) like fish oils, flax seed oil, etc. Green tea, a low-cholesterol diet, avoiding dairy (sterol fats), and regular exercise will most certainly bring down the cholesterol levels. The idea is to increase PUFAs (omega-3 and omega-6), which are nutritionally deficient, and to reduce sterol fat intake, which is in excess. Excessive antioxidant use will make this condition worse.

The same regimen will do little to help correct the *yang* type of hyperlipidemia. These people will generally have more serious health risks due to increased oxidation including: heart disease, stroke, cancer, MS, etc. Treatment is aimed at nourishing *yin* in the form of sterol fats. This means that including milk, butter, cheese, boiled eggs, etc., will correct this condition. In addition to nourishing *yin* to regulate the cholesterol numbers, the *yang*-type condition will tend to have varying degrees of oxidation. Essential fatty acids (EFAs) will make this condition worse, and antioxidants will not only improve the condition, but also safeguard against other serious health risks and premature aging.

From a metabolic standpoint, people with *yin* hyperlipidemia tend to have too little cellular oxidation and are in a "reduced" metabolic state (net loss of electrons; oxidation is a net gain of electrons). Like all TCM patterns, the underlying pattern (*yin* or *yang*) must therefore be diagnosed and treated, rather than focusing on lowering the lipid numbers.

Blood sugar levels also play a large role in the formation of cholesterol and hyperlipidemia. Excess refined sugar, polyunsaturated fats (vegetable oils), and alcohol consumption are among the biggest culprits for elevated cholesterol. Reduce these and the cholesterol should come down. Getting your patients to agree to do this may pose yet another challenge. Many people have been basically told by their MDs and the pharmaceutical companies that they can eat whatever they want and their cholesterol-lowering medication will eliminate the risk of health problems. Put in the time in to educate others about the real issues surrounding high cholesterol - it could save many lives!

**Oxidation**
Oxidation is the net gain of electrons (free radicals), which can cause major cellular damage to cells of the body and premature aging. Oxidation is an increase in catabolic activity or cellular breakdown. Increased oxidation can cause systemic inflammation, coagulation, degeneration and poor oxygenation of tissues and cells. There are medical conditions that are related to having high oxidized cholesterol, including: atherosclerosis, cerebral arteriosclerosis, diabetes, stroke and cerebral vascular disease (CVD).

**Oxidation of Lipids**

The real health risks arise with oxidation of lipids, especially LDLs. These fats are highly susceptible to oxidation and can turn rancid in the body. Circulating rancid fats throughout the body is extremely stressful to all systems of the body, especially cardiac function. No matter how high or low the lipid values are, if there is high oxidation there is a greater risk for heart disease, atherosclerosis, inflammation, immunosuppression and gallstones.

Natural, unrancid cholesterol is a great antioxidant! It is *yin* and protects the body from heat (excess or deficient) and fire toxins. The problem lies in the rancidity caused by oxidation (fire toxins) that occurs when the LDLs become oxidized. These harmful, oxidized LDLs are called "oxysterols." In most cases, non-oxidized lipids pose NO health risks!

The major concern is that recent research on statin drugs has revealed that they actually deplete natural antioxidants (such as CoQ₁₀), causing systemic oxidation. Although after taking cholesterol-lowering meds, the numbers may reduce, the drugs cause rapid oxidation that can damage other tissues.

The eyes are particularly sensitive to oxidative stress. Vision loss is a very real side effect of taking cholesterol-lowering medication. In my practice, I have seen many people’s vision deteriorate after taking statin drugs. Any patient diagnosed with any form of retinal disease (macular denegation, retinitis pigmentosa, etc.) should be informed that the side effects of the statin drugs may make their vision much worse!

**Oxidation According to TCM**

In TCM, oxidation is a form of "fire toxin." Fire toxins can either come from *yin* deficiency or *yang* excess/stagnation. Of course, you should do your TCM diagnosis to determine the dominant organ(s) diseased with fire toxins (kidney, liver, stomach, etc.) You also should determine the underlying pattern of
each person’s condition. An accurate diagnosis will allow you to target and "put out the fire," as well as correct the TCM pattern imbalance. Using antioxidant and TCM formulas together, you can direct the antioxidant to specific organs and areas of the body.

**Determining Oxidation Levels**

There are a few ways to test oxidation levels. There are companies that will check oxidation levels of both blood and urine. I personally prefer to do this myself and/or have my patients self-monitor their oxidation levels at home. Urine tests can be ordered online or from various supply companies that measure the amount of free radicals or oxidants in the body. There are other ways to assess and monitor oxidation that are more labor-intensive, so the urine test is probably the easiest way to go.

**Treatment**

*Nutrition and supplementation*

In addition to diagnosing and treating the underlying TCM pattern, we must decide if the hyperlipidemia is a result of *yin* excess or *yang* deficiency. Once this has been determined, we can have the patient follow the nutritional recommendations outlined for each pattern. Exercise also will play a large role in balancing the blood lipid levels.

Nutritional supplementation for *yin* hyperlipidemia should include betaine HCl, digestive enzymes, L-carnitine and PUFAs. The objective is to facilitate metabolism of sterol lipids and increase EFAs. Supplementation for *yang* hyperlipidemia should consist of CoQ_{10}, natural vitamin E (as gamma tocopherol), palm tocopherol, and sterol fats (i.e., butter, cheese, milk). In addition, one of the most important antioxidants is water (spring water or distilled water).

Remember, PUFAs (omega-3 and omega-6) are oxidizing, which could make the *yang* hyperlipidemia condition much worse. Many patients are taking these kinds of oils because they have been told they are "good" for them. Higher oxidation and accelerated aging will result if the person is already oxidized.

*Chinese herbal medicine*

Chinese herb formulas should be tailored to each patient, but there are a few good formulas that can be used as base formulas. For the *yin*-excess type, green tea can help to emulsify fats in the body and is very
effective in lowering cholesterol. An appropriate base formula for this condition would be \textit{er chen tang}. For \textit{yang} hyperlipidemia, use \textit{si wu tang}, in order to nourish \textit{yin}.

These are just suggestions; there are many other formulas and herbs that would work very well. The idea is to be clear about which pattern you have identified - \textit{yin} or \textit{yang}. Treatment of the \textit{yin} excess should be aimed at resolving dampness and strengthening the \textit{yang qi}. By nourishing the \textit{yin} in cases of hyperlipidemia, the body will stop transporting the limited fats into the blood, and cholesterol will stabilize.

\textit{Resources}


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