Statin Drugs vs. Cholesterol-Lowering Dietary Supplements Transcript

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Study Setup: Statin vs Supplements

Statin Drugs vs. Cholesterol-Lowering Dietary Supplements Rarely do I do a video about just one paper, but this one's pretty juicy. The SPORT study out of the Cleveland Clinic— supplements, placebo, or rosuvastatin.

Study participants were randomized to get a starting dose of the cholesterol-lowering statin drug rosuvastatin, sold as Crestor, or a placebo, or one of six common supplements: fish oil, cinnamon, garlic, turmeric, plant sterols, or red yeast rice.

The researchers wanted to know how they all compared in terms of lowering LDL cholesterol within a month.

Results: Rosuvastatin Beats Placebo and Supplements

Not surprisingly, the drug beat out all the supplements, reducing LDL by an average of 35% compared to the sugar pill placebo, whereas not a single one of the dietary supplements was able to beat the placebo, and garlic seemed to make things worse.

Here's how they all did on average, but what I really appreciated were the cascade plots. For example, look at the placebo. Each of those skinny little bars is an individual participant.

Give people a placebo and remeasure their cholesterol a month later and just through normal variation about half go up, half go down, and we see similar results for the various supplements.

With the garlic in blue, note how more people ended up higher than lower, which is where you get the higher overall value from. But now, check out the drug.

The LDL cholesterol of every single person went down, from about a drop of 18% to more than 50%. Half dropped by 40% or more.

Why the Supplement Choices Are Questionable

This clearly demonstrates, wrote the authors, that every participant randomized to the drug had significant LDL lowering, and all the supplements were almost akin to a flip of the coin whether LDL would increase or decrease.

Okay, but first of all, what a weird mix of supplements to pick. Of the six dietary supplements examined, only three–plant sterols, red yeast rice, and garlic– are generally marketed as cholesterol-lowering.

The authors argue that fish oil and cinnamon make general heart health claims; so, a consumer might be duped into thinking they might lower cholesterol, but don't have much to say about why they chose turmeric.

Why not bergamot, berberine, artichoke, psyllium? Were they just trying to make the drug look better? The trial was funded by the company that sells Crestor, but since it's been off patent for about a decade, I'd assume it wouldn't be profiting much from it anymore, but I'd be wrong.

Crestor still brings in more than a billion dollars a year. Okay, so you could see why they might have gone out of their way to pick some duds for the comparative.

But what about the red yeast rice? Shouldn't that have worked? Is it a coincidence that the brand they chose was found to have zero active ingredients?

No wonder it didn't work. The pick for plant sterols makes more sense, as it's one of the more common brands.

Ingredient Quality and Label Concerns

Why didn't it work? One commentator suggested it was because they didn't give it enough time to work, but phytosterols should start having an effect within two weeks; so, maybe this particular brand doesn't work very well.

It certainly has questionable ingredients, like carmine, which is a red dye made out of crushed bugs. The time issue may apply to the turmeric, though.

Turmeric curcumin may decrease LDL a little, less than 10 points, but only in studies lasting at least eight weeks. Why did the garlic raise LDL? I thought garlic lowered LDL.

Indeed, less than an eighth of a teaspoon a day of garlic powder a day has been shown to work. So, why didn't garlic work here? Maybe because it wasn't garlic; it was Garlique, which contains 15 other ingredients and is odor free, so presumably had some of the garlic compounds removed.

They did use real cinnamon, but who cares, since cinnamon is not known for cholesterol-lowering and neither is fish oil. Now, point taken. Dietary supplements are so poorly regulated we can't even be sure what's really in them.

Whole Foods and the Case for Proven Treatments

There's no guarantee what's in the supplements actually matches what's on the label, which is why, whenever possible, whole foods are better. So, artichoke hearts instead of artichoke extracts, barberries instead of berberine, and real garlic, like garlic powder, instead of garlic supplements.

I have some videos coming up where I'll go through various other foods that lower cholesterol in addition to any drugs you or your doctor may decide upon.

It's worth remembering, though, that heart disease is life or death. Look what even a starter dose of a statin drug can do. I have lots of videos like this one to help you decide in the face of the mountain of misinformation that may deter folks from taking well-regulated, inexpensive, safe, and potentially life-saving medications with decades of supporting evidence.