REPATHA

To understand the Mechanism of Action of this drug, you first have to understand that its effect is directly on the liver. Liver cells have two opposing functions with respect to cholesterol metabolism. First of all, the liver synthesizes cholesterol from sugars and certain fats in the diet and also from short chain fatty acids produced in the gut from the gut Microbiota.

But while the liver is responsible for producing cholesterol and then using some of it for its own functions, then distributing it throughout the body to maintain healthy cell membranes and healthy hormone production, the liver also is responsible for eliminating cholesterol to maintain a balance. The elimination process involves conjugating the cholesterol and dumping it into the gallbladder where it can be further dumped into the gut for elimination in the stool. Repatha is a pharmaceutically synthesized immunoglobulin. Particularly, it is an IgG2 that binds to the surface of Hepatocytes to block the anabolic function of the liver as regards cholesterol, thus causing the cholesterol molecule to be broken down.

So, by a mechanism entirely different than that of Statins, the same general idea applies here --- the drug interferes with liver function. But in this case the intrusion on liver function is by an Immunoglobulin creates an Immune-mediated aggression against liver cells, thus blocking a critical metabolic enzyme.

Repatha or Statin? --- Name your poison.

As we NUTRI-SPEC practitioners know --- Statin drugs cause cognitive decline and ironically, they increase the incidence of cardiovascular disease. They do this largely by destroying the function of C-Reactive Protein (CRP) --- the critical adaptogen to maintain heart function and maintain and anti-inflammatory state in the vascular walls. CRP is a perhaps the easiest and most direct indication of the likelihood of cardiovascular inflammation --- at the same time it is a great indicator of Immuno-Neuro-Endocrine Stress, (INE) Stress --- thus an indication of Systemic inflammation = INFLAM-AGING.

Repatha, on the other hand, works its evil by mimicking an immune system attack on liver cell function. The drug is new enough that all the long-range side effects are not clearly defined as yet.

But among the side effects that are clearly defined --- we have the critical information that Repatha increases blood pressure and increases blood sugar.

Did I say, "Name your poison?" May I also say, "This is insanity!"?

As we all know, high blood pressure is an independent risk factor for heart attacks and strokes, while elevated cholesterol is not.

We also know that Insulin Resistance leading to Metabolic Syndrome is an independent risk factor (and actually a primary cause) of cardiovascular disease.

So, we have drug purported to save you from cardiovascular disease by blocking cholesterol metabolism in the liver --- at the same time it increases two independent risk factors for heart attacks and strokes --- elevated blood pressure and elevated blood sugar.

POINT OF EMPHASIS: Lock it into memory, and lock it into the presentation you give your patients. ELEVATED TOTAL CHOLESTEROL IS NOT AN INDEPENDENT RISK FACTOR FOR HEART ATTACKS AND STROKES. As many people die of heart attacks and strokes with low cholesterol as do with elevated cholesterol. The only way cholesterol enters the cardiovascular picture is when LDL cholesterol is oxidized in the vascular wall --- and that oxidation is a result of inflammation associated with an immune system producing excess activated macrophages, which in turn produce an excess of the inflammatory cytokine Interleukin-6.

The number 3 risk factor for heart attacks and strokes is actually low cholesterol of the HDL type. The number 2 risk factor for heart attacks and strokes is elevated triglycerides --- the blood fat that, unlike cholesterol, really counts as a CVD risk factor. The number 1 risk factor for heart attacks as strokes is both high triglycerides and low HDL cholesterol --- in other words, an elevated TG/HDL Ratio.

Other independent risk factors for heart attacks and strokes include low thyroid, low testosterone, elevated homocysteine, elevated CRP, and elevated mean blood pressure.

Elevated total cholesterol very definitely indicates one or more Metabolic Imbalances --- but again, is not an independent risk factor for CVD.