



Ask the Experts about Cardiovascular

From Medscape Internal Medicine

Use of Niacin in the Treatment of Metabolic Syndrome

Question

In patients with metabolic syndrome (high triglycerides, low HDL), where individuals are at risk from high blood pressure, obesity, and sedentary lifestyle, is it appropriate to add slow-release niacin to a statin? If yes, how high a dose would you recommend? Is the risk of myositis or rhabdomyolysis acceptable?

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Response from Erica Brownfield, MD

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The metabolic syndrome, also known as the insulin-resistance syndrome, is a clinical condition encompassing abdominal obesity, hypertension, insulin resistance, and dyslipidemia. It is defined upon the presence of any 3 of the following[1]:

- * abdominal obesity
- * triglycerides > 150
- * HDL < 40 (men), < 50 (women)
- * systolic BP \geq 130 or diastolic BP \geq 85
- * fasting glucose \geq 110

Because patients with metabolic syndrome are at an increased risk of developing coronary heart disease, treatment should aim at decreasing this risk. The primary target should be to modify the cardiac risk factors such patients have, as outlined in the definition. The first step should be lifestyle modification including diet, exercise, and weight loss. Such lifestyle modifications help with insulin resistance, blood pressure, and lipid abnormalities.

With regard to dyslipidemia, decreasing LDL should be the first goal. Once

the LDL goal is obtained, decreasing triglycerides and increasing HDL should be the next step. Often, the 2 are improved with the decrease in the LDL. In addition to lifestyle modification, statins are very helpful in decreasing LDL and triglycerides. They can also be beneficial by increasing HDL. When statins alone do not achieve the goal of increasing HDL and decreasing triglycerides, adding niacin can be beneficial. Although the combination therapy should be used with caution, the incidence of myopathy appears to be rare.[2] Furthermore, the concern regarding the adverse glycemic effects of niacin was somewhat quelled by the Arterial Disease Multiple Intervention Trial.[3]

Therefore, the benefit of cardiovascular protection outweighs the risk of muscle injury with the combination of statins and niacin in those patients who are not at target lipid goals using statins alone, and is considered an acceptable option.

Treating hypertension and adding aspirin for patients with coronary heart disease is also recommended.

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References

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