

Is the good cholesterol that good at preventing cardiac events?

Madam, we have read "HDL cholesterol - How do I raise my patients good cholesterol?"¹ by Shaikh and Kamal with interest. They have argued that HDL is the good cholesterol and helping patients in "improving their good cholesterol is crucial for prevention of further vascular events".¹

But a recent study has found that 'good' cholesterol may not be as good as previously thought.² The study published in Lancet looked at the genes of about 170,000 individuals, looking for variations in DNA that earlier research shows naturally raise HDL levels in those who possess them. After looking for these 15 genetic variations — called single nucleotide polymorphisms — in the participants, the researchers discovered none of these variations actually reduced their risks for having a cardiac event, compared with people who didn't have the variations. Authors concluded that "Some genetic mechanisms that raise plasma HDL do not seem to lower risk of myocardial infarction. These data challenge the concept that raising of plasma HDL will uniformly translate into reductions in risk of myocardial infarction".

The lead investigators of the study further clarified that results of the study suggest that HDL still remains an important tool for assessing heart disease risk but using

medications to raise HDL cholesterol might not be beneficial as previously thought.^{3,4}

Statins have consistently shown to reduce the risk of future cardiac events. But recently concerns have been raised about the possible complications of their long term use and the influence of pharmaceutical industry over reporting the scientific evidence.⁵ Moreover their use in healthy asymptomatic individuals with raised cholesterol is not recommended.⁵ A meta-analysis of 11 trials including 65,229 persons with 244,000 person-years of follow-up in healthy but high-risk men and women showed no reduction in mortality associated with treatment with statins.⁶ In addition statin therapy is known to cause risk of new-onset diabetes although, the cardiovascular benefits of statin therapy clearly outweigh the risk of developing diabetes.⁷ The other reported side effects of statins include increased risks of moderate or serious liver dysfunction, acute renal failure, moderate or serious myopathy, cognitive impairment, rhabdomyolysis and cataract.^{8,9}

In view of the above and considering the poor socioeconomic conditions, low educational status and lack of regular follow up in Pakistani patients, nondrug approaches to

reducing coronary risk should also be explored and recommended by Pakistani physicians. These includes a combination of dietary modification and physical exercise that have been shown to be effective in lowering cholesterol.^{10,11}

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