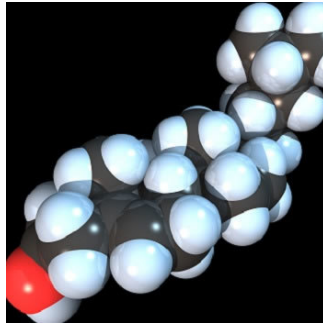


Gene Mutation with Elevated HDL Cholesterol Increases Risk of CHD



New research suggests that a rare gene mutation in some individuals with elevated HDL cholesterol can increase the risk of CHD development. The research is published in *Science*.

HDL is generally considered to be the good cholesterol as it is believed to be cardioprotective but in this new study conducted with 300 participants with very high HDL-C levels, it was found that only one person carried two copies of the gene variant known as P376L which impairs the function of the scavenger receptor BI (SR-BI)—the major receptor for HDL.

Further analysis with 1282 additional people showed that the P376L mutation was rare and significantly associated with high HDL-C. When the genetic records for another 300,000 individuals was examined, these findings were echoed and meta-analysis of 16 population-based genotyping studies confirmed the same. Findings from the meta-analysis also showed that the P376L carriers had a 79 percent higher risk of CHD vs noncarriers.

According to the senior author of the study Dr Daniel J Rader, this is not a good mechanism of HDL-raising. This does not necessarily mean that high HDL is doing a bad thing but that it is the loss in SR-BI receptor function in the liver that is bad. In other words, HDL on a population basis is associated with reduced risk of heart disease but it might differ on an individual level.

"In terms of making decisions about patients, a high HDL should never serve as a reason to, for example, not give someone a statin if they need it to lower their LDL or not doing other things we would normally do," said Rader.

The investigators also state that the most important finding of their study is that P376L carriers have an increased risk of CHD. They suggest that upregulation or enhancement of SR-B1 could turn out to be a novel therapeutic approach for reducing CHD risk in the general population.

Source: [Science](#)

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