HDLコレステロール値が非常に高いことは有害である可能性がある(Abstract 50)

HDLコレステロール値が非常に高いと心血管死または非致死性MIのリスクが上昇する

Very high levels of HDL-cholesterol increases risk of cardiovascular death or non-fatal MI

高比重リポ蛋白(HDL)コレステロール値が非常に高いことは心筋梗塞(MI)および死亡のリスクが高いことと関連がある可能性がある、とESC Congress 2018 で発表された。追跡期間中央値4年間におけるMIまたは心血管死のリスクは、HDLコレステロール値が41～60 mg/dL (1.1～1.5 mmol/L)の参加者で最も低かった。リスクは、HDLコレステロールが低値(41 mg/dL未満)および非常に高値(60 mg/dL超)の両者において高かった。HDLコレステロール値が非常に高い参加者は、HDLコレステロール値が41～60 mg/dLの参加者に比べ、心血管死または非致死性MIのリスクが50% 高かった。

Full Text

Very high levels of high-density lipoprotein (HDL) cholesterol may be associated with an increased risk of myocardial infarction and death, according to research presented at ESC Congress 2018.

Study author Dr. Marc Allard-Ratick, of Emory University School of Medicine, Atlanta, US, said: "It may be time to change the way we view HDL cholesterol. Traditionally, physicians have told their patients that the higher your 'good' cholesterol, the better. However, the results from this study and others suggest that this may no longer be the case."

HDL cholesterol has been considered "good" because the HDL molecule is involved in the transport of cholesterol from the blood and blood vessel walls to the liver and ultimately out of the body, thereby reducing the risk of clogged arteries and atherosclerosis. People with low HDL cholesterol have a greater risk of atherosclerosis and cardiovascular disease. But the protective effect of very high HDL cholesterol has been unclear.

This study, conducted as part of the Emory Cardiovascular Biobank, investigated the relationship between HDL cholesterol levels and the risk of heart attack and death in 5,965 individuals, most of whom had heart disease. The average age of participants was 63 years and 35% were female.

Participants were divided into five groups according to their HDL cholesterol level: less than 30 mg/dl (0.78 mmol/L), 31–40 mg/dl (0.8–1 mmol/L); 41–50 mg/dl (1.1–1.3 mmol/L); 51–60 mg/dl (1.3–1.5 mmol/L); and greater than 60 mg/dl (1.5 mmol/L).

During a median follow-up of four years, 769 (13%) participants had a myocardial infarction (MI) or died from a cardiovascular cause. Participants with HDL cholesterol 41–60 mg/dl (1.1–1.5 mmol/L) had the lowest risk of MI or cardiovascular death. Risk was increased both in participants with low levels (less than 41 mg/dl) and very high levels (greater than 60 mg/dl) of HDL cholesterol, which produced a U-shaped curve when plotted graphically.

Participants with HDL cholesterol levels greater than 60 mg/dl (1.5 mmol/L) had a nearly 50% increased risk of dying from a cardiovascular cause or having an MI compared to those with HDL cholesterol levels 41–60 mg/dl (1.1–1.5 mmol/L).

The associations were consistent even after controlling for other risk factors for heart disease such as diabetes, smoking, and low-density lipoprotein (LDL) cholesterol, as well as other factors linked with high HDL cholesterol such as alcohol intake, race, and sex.

The results support findings from several large population-based studies, including a recent publication which found increased cardiovascular and all-cause death when HDL cholesterol reached extremely high levels. Dr. Allard-Ratick said: "Our results are important because they contribute to a steadily growing body of evidence that very high HDL cholesterol levels may not be protective, and because unlike much of the other data available at this time, this study was conducted primarily in patients with established heart disease."

He noted that more research is needed to elucidate the mechanisms of this paradoxical association. "While the answer remains unknown, one possible explanation is that extremely elevated HDL cholesterol may represent 'dysfunctional HDL' which may promote rather than protect against cardiovascular disease," he said.

Dr. Allard-Ratick concluded: "One thing is certain: the mantra of HDL cholesterol as the 'good' cholesterol may no longer be the case for everyone."

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