小児における広範な脂質スクリーニングが推奨される

HDLコレステロールレベルの低い小児はしばしば他の心血管リスクファクターを有する

Children with low levels of HDL cholesterol often found to have other cardiovascular risk factors

高密度リポ蛋白（HDL）コレステロールレベルの低いミドルスクールの生徒は、後に心血管系の健康状態を不良とさせる可能性のある他のリスクファクターをも有する確率が高いようであるとの研究結果が、第60回American College of Cardiology学会で発表された。このスタディは米国の学校ベースの介入プログラムに組み入れられた6学年児1,104人を対象とした。研究者らは同意した生徒から脂質および血糖値、ボディマスインデクス（BMI）、血圧、心拍数および食事、運動および運動不足の習慣を評価した標準的なアンケートなどのデータを収集した。その後彼らは、HDL≤40mg/dLまたはHDL>40mg/dLの2群の生徒を比較した。計177人（16%）が低HDLを有していた。彼らのうち、62%以上が過剰体重であった。HDL≤40mg/dLの小児はまたHDLレベルの高い小児と比較し、高血圧も有し中性脂肪レベルも高値であった。また身体活動レベルも低かった（1週間当りの中等度以上の運動をする日数が少なかった）。さらなる研究が必要ではあるが、このスタディから、小児に対する広範なコレステロールスクリーニングにより早期介入を行い生涯にわたる心疾患リスク軽減に役立てることが推奨される可能性がある、と筆者らは述べている。

Full Text

Low levels of high density lipoprotein (HDL) cholesterol have been linked to an increased risk of heart disease among adults, but few studies have looked at low HDL among children. New data find that low HDL levels may be common in children, too, adding to the evidence that HDL may need further consideration when assessing children's health. Middle school students with low levels of HDL also appear more likely to have other risk factors that potentially put them at risk for poor heart health later on, according to research presented at the American College of Cardiology's 60th Annual Scientific Session.

"The association of low HDL cholesterol with unhealthy behaviors, being overweight, higher blood pressure and an unfavorable lipid profile in kids is clearly seen in this study," said Elizabeth Jackson, M.D., M.P.H., assistant professor of medicine, Division of Cardiovascular Medicine, University of Michigan Health System, Ann Arbor, Michigan, and senior author of the study. "Cardiovascular disease doesn't just start in adulthood, and there may be factors that could help us identify during youth or adolescence who might be at increased risk for developing health problems later on."

As previous studies have shown, components of the lipid profile including LDL and HDL can track into adulthood and are associated with a risk for heart disease later in life. Jackson says there is a need to better understand the prevalence of HDL in youth and how it plays a role in heart health.

The present study involved 1,104 sixth graders enrolled in Project Healthy Schools, a school-based intervention program in southeastern Michigan. Researchers collected data from consenting students, including lipid and glucose levels, body mass index (BMI), blood pressure, heart rate and a standardized questionnaire assessing dietary, exercise and sedentary habits. They then compared two groups of students: those with HDL ≤40mg/dL and those with HDL >40 mg/dL.

A total of 177 students (16 percent) had low HDL. Of these, more than 62 percent were overweight. Children with an HDL ≤40 mg/dL also had higher blood pressure and triglyceride levels compared to children with higher levels of HDL. They were also more likely to be physically inactive (fewer days of moderate exercise reported per week).

"When we look at the relationship between lipids and weight in kids, a healthier lifestyle during childhood may be a very important contribution to preventing heart problems in adulthood," Jackson said. "Focusing on reducing body mass index and increasing exercise are two lifestyle changes that parents and schools can both take part in that can help improve overall health in their children."

Although further research is needed, authors say this study may suggest broader-based cholesterol screening for children to intervene earlier to help reduce lifelong risk of heart disease. In 2008, the American Academy of Pediatrics (AAP) adopted new cholesterol screening guidelines due to the increasing epidemic of childhood obesity and subsequent risk of type 2 diabetes, high blood pressure and cardiovascular disease in older children and adults. AAP now recommends lipid screening for children with a family history of lipid abnormalities, as well as overweight children regardless of family history or other factors. The National Heart Lung and Blood Institute states that lipid screening in children should start as early as age 2 if they have a parental history of high cholesterol (total cholesterol > 240 mg/dl) or a family history of early heart disease.

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