Associations of Serum Lipids With Risk of Cognitive Impairment in Chinese Centenarians

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Research article

Keywords: Cognitive impairment, Serum lipids, Centenarian

Posted Date: January 15th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-145816/v1>

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Abstract

Background: Dyslipidaemia and cognitive impairment are common in old adults and risks of both of them increase with increasing age. However, the relationship between lipids and cognitive impairment in longevous people is still unclear. This study aimed to assess the association between serum lipids and cognitive impairment in Chinese centenarians.

Methods: In a cross-sectional study , total cholesterol (TC), triglycerides (TG), high-density lipoprotein cholesterol (HDL-C), and low-density lipoprotein cholesterol (LDL-C) were biochemically measured in 924 centenarians and cognitive functions were evaluated. Multiple logistic regression analysis was used to examine the associations of lipids with cognitive impairment and the risks for cognitive impairment associated with quartile of serum lipid concentrations.

Results: The results demonstrated HDL-C was an independent beneficial factor for cognitive impairment after controlling for the potential covariates (Odds ratio, OR=0.350, 95% Confidence interval, CI=0.159–0.774; P=0.009). An inverse association of HDL-C with cognitive impairment was found (P for trend=0.001) and the association remained significant after adjusting for possible cofounders (P for trend =0.012). The OR of cognitive impairment for the lowest versus highest quartiles of HDL-C was 1.96 (95%CI, 1.09–3.45).

Conclusions: The results indicated that low HDL-C is likely to be harmful for cognitive functions in centenarians. The cognitive function of longevous persons with low HDL-C concentrations deserves more attention.

Full Text

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