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Associations between remnant cholesterol and depression in elderly patients with type 2 diabetes

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Objective

Depression is a common comorbidity in patients diagnosed with type 2 diabetes. The remnant cholesterol was originally recognized as an important contributor to the residual cardiovascular disease risk. Recent studies have also linked elevated remnant cholesterol with mental health disorders. The present study aimed to clarify the associations between remnant cholesterol level and depression in elderly patients with type 2 diabetes.

Methods

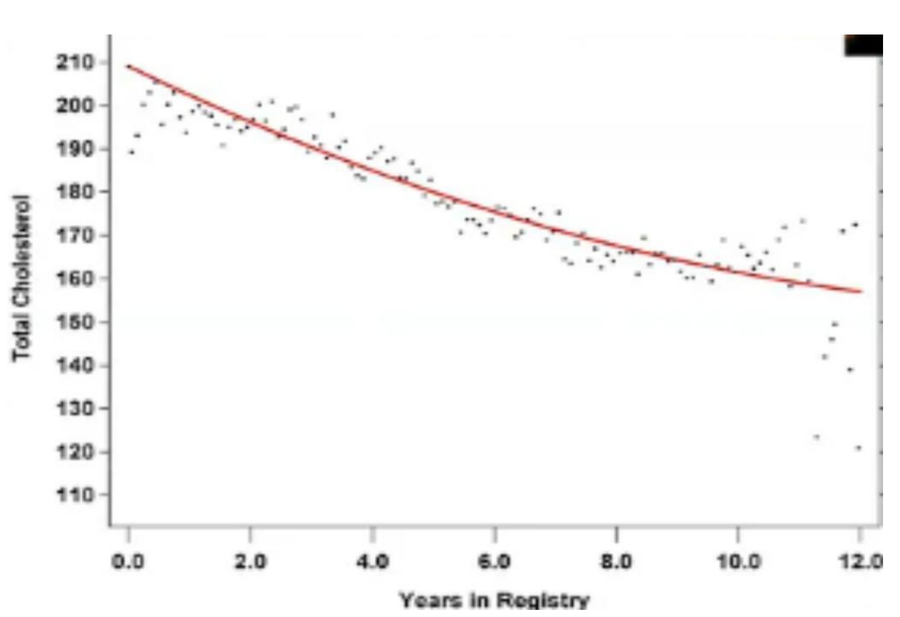
In this single-center retrospective case-control study, data from a total of 158 diabetic elderly patients (age≥ 60 years) with depression and 316 without depression were analyzed. Depression was diagnosed by experienced psychiatrists and quantitatively assessed using the Hamilton Depression Scale-24 (HAMD24). The remnant cholesterol is derived from the standard lipid panel and calculated as total cholesterol-high-density lipoprotein cholesterol-low-density lipoprotein cholesterol. The association between remnant cholesterol with depression was evaluated with the logistic regression analysis.

Results

The remnant cholesterol level in those with depression was significantly higher than those without depression (0.69±0.09 vs 0.58±0.07, P<0.001). Multivariable-adjusted logistic regression analysis indicated that every 0.01mmol/L increase in remnant cholesterol was associated with 9.7% increased risk for depression (odds ratio=1.097, 95% confidence interval 1.021-1.204). Subgroup analysis indicated that the positive association between remnant cholesterol and depression was only observed in male patients (P for interaction =0.04) and patients with a body mass index < 30kg/m^2 (P for interaction =0.008).



Cholesterol And Diabetes: Relationship and Other Tips



Conclusions:

An elevated remnant cholesterol is associated with increased risk for depression in elderly patients with type 2 diabetes, especially male patients and those with a body mass index < 30kg/m^2.