SUPPLEMENTARY MATERIALS

Supplementary Methods

Personal history of smoking behavior was calculated by "pack/years" quantifying the packs smoked per day multiplied by years as a smoker, with the threshold was set to 15. Drinking was defined as an average of alcoholic drink (≥ 50 ml) at least once per week lasting more than half a year. Body-mass index (BMI) was calculated as body weight (kg) divided by heights squared (m^2).

The following variables were categorized according to the normal reference range [1–11] and we considered the following levels of biochemical indicators as the commonly used thresholds in this study: the low LDL level as less than 2.00 mmol/L [1], the high level of D-Dimer as more than 0.50mg/L [2], the high level of fibrinogen as more than 4.00g/L [3], the high level of hypersensitive C-reactive protein (hs-CRP) as more than 3.00mg/L [4], the high level of aspartate transaminase (AST) as more than 40IU/L [5], the low level of albumin as less than 35.00g/L [6], the low level of calcium as less than 2.10mmol/L [7], the high level of mean corpuscular volume (MCV), as more than 90.00fL [8], the high level of HCY as more than 15 mmol/L (the cutoff for hyperhomocysteinemia) [9], the high level of Cys C as more than 0.95mg/L [10] and the low level of fasting blood glucose (FBG) as less than 5.00mmol/L [11].

Supplementary Results

Multiple linear regression analysis for the association of risk factors of dementia and MMSE score in PD, DM and PD-DM patients

Using multiple linear regression analysis, we found that a lower FBG (<5.00 mmol/L, B= -1.052, SE=0.433, β=-0.126, p=0.016), higher HCY (>15.00 μmol/L, B= -1.336, SE=0.595, β= -0.115, p=0.026), and Cys C (>0.95 mg/L, B= -0.908, SE=0.452, β= -0.103, p=0.046), and age (B=-0.140, SE=0.019, β= -0.376, p<0.001) were associated with lower MMSE score. No significant association was observed between MMSE score and hyperlipidemia (B= -1.232, SE=0.641, β=-0.098, p=0.056) in PD patients (adjusted R^2=0.173, F=14.469, p<0.001). In addition, higher fibrinogen (>4.00 g/L, B= -1.857, SE=0.663, β= -0.174, p=0.006), lower LDL-C (<2.00 mmol/L, B= -1.876, SE=0.674, β= -0.173, p=0.006), age (B= -0.171, SE=0.032, β= -0.342, p<0.001) and SAE (B= -2.196, SE=0.640, β= -0.216, p<0.001) were associated with lower MMSE score in PD-DM patients (adjusted R^2=0.275, F=19.383, p<0.001). A higher AST (>40 IU/L, B= -3.278, SE=1.023, β= -0.141, p=0.001) and Cys C (>0.95 mg/L, B= -1.878, SE=0.690, β= -0.119, p=0.007), anxiety or depression (B= -1.579, SE=0.531, β= -0.135, p=0.003), male gender (B= -1.182, SE=0.398, β= -0.131, p=0.003) and age (B= -0.163, SE=0.015, β= -0.481, p<0.001) were associated with lower MMSE score in DM patients (adjusted R^2=0.310, F=34.277, p<0.001) (Supplementary Table 1). These observations are consistent with the results of multivariable logistic regression analysis for risk factors in dementia in PD, DM and PD-DM patients (Table 3A, Table 3B, Supplementary Table 4).

Supplementary References

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