Cigarette smoking, coffee intake and alcohol consumption preceding Parkinson`s disease: a case–control study

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Background: Although genetic factors play a role in the development of Parkinson's disease (PD), the lack of a clear genetic underpinning has led to investigation of the role of environmental factors in the etiology of PD. Objective: A case–control study was performed in Belgrade in order to investigate the association between PD and smoking, coffee and alcohol consumption. Methods: 110 new PD cases and 220 hospital controls were interviewed. Cases and controls were matched by sex, age and place of residence. Conditional univariate and multivariate logistic regression methods were used. Results: With PD were associated, independently from each other, current smoking [odds ratio (OR) = 0.44; 95% confidence interval (CI) = 0.23–0.82], alcohol consumption (OR = 4.78; 95% CI = 2.67–8.55) and coffee consumption (OR = 2.54; 95% CI = 1.36–4.75). In ever smokers the risk for PD significantly decreased with the increasing number of cigarettes smoked and with increasing duration of smoking. The risk for PD significantly increased with the increasing quantity of alcohol consumption. PD risk was significantly higher in subjects whose average daily consumption of coffee was 1 and 2–3 cups, and it was lower (but not significantly) in those whose daily coffee consumption was 4+ cups. The results of multivariate analyses did not substantially change after adjustment on family history positive on PD. Conclusion: The findings of this study support the hypotheses of inverse association of smoking with PD, but an inverse association with coffee was not confirmed. PD was found to be positively associated with increased alcohol consumption.