

## **Alcohol consumption and risk of microvascular complications in type 1 diabetes patients: the EURODIAB Prospective Complications Study.**

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**AIMS/HYPOTHESIS:** The aim of this study was to investigate the association between alcohol consumption and risk of microvascular complications (retinopathy, neuropathy, nephropathy) in type 1 diabetes mellitus patients in the EURODIAB Prospective Complications Study. **METHODS:** The EURODIAB Prospective Complications Study is a follow-up study including 3,250 type 1 diabetes mellitus patients from 16 different European countries. We investigated the cross-sectional association between moderate alcohol consumption and risk of retinopathy, neuropathy and nephropathy among 1,857 of these patients. **RESULTS:** We documented 304 cases of proliferative retinopathy, 660 cases of neuropathy and 157 cases of nephropathy (macroalbuminuria). Alcohol consumption was associated with risk of proliferative retinopathy, neuropathy and macroalbuminuria in a U-shaped fashion. Moderate consumers (30-70 g alcohol per week) had a lower risk of microvascular complications with odds ratios of 0.60 (95% CI 0.37-0.99) for proliferative retinopathy, 0.61 (0.41-0.91) for neuropathy and 0.36 (0.18-0.71) for macroalbuminuria in multivariate-adjusted models. These results were similar when excluding patients who had been advised to drink less alcohol because of their health. The relation was most pronounced for alcohol consumption from wine. Drinking frequency was significantly, inversely associated with risk of neuropathy, but a similar trend was visible for proliferative retinopathy and macroalbuminuria. Alcohol consumption was not associated with occurrence of ketoacidosis or hypoglycaemic attacks. **CONCLUSIONS/INTERPRETATION:** Consistent with its effects on macrovascular complications, moderate alcohol consumption is associated with a lower risk of all microvascular complications among type 1 diabetes patients.

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