**Smoking is a risk factor of Non-alcoholic fatty liver disease (NAFLD) for patients with type 2 diabetes**

**Objective:** Non-alcoholic fatty liver disease (NAFLD) has become one of the most common chronic liver diseases. The association between smoking and NAFLD in patients with type 2 diabetes (T2D) are still unclear.

**Methods:** A total of 1,500 patients with T2D were enrolled in this study. Demographic characteristics and laboratory data were collected. Fatty liverindex (FLI) was calculated to evaluate hepatic fat accumulation. The patients were divided into two groups (NAFLD group if FLI>60 and non-NAFLD group if FLI<30). The relationship between smoking and NAFLD was analyzed by multivariable logistic regression.

**Results:** Compared with non-NAFLD group, patients in NAFLD group were predominantly male, younger, and had a shorter disease duration. The concentrations of serum uric acid, triglycerides, and total cholesterol were higher in NAFLD group than those without NAFLD. The prevalence of smoking was higher in NAFLD group compared to non-NAFLD group (42% vs 29%, *P*<0.001). Multivariable logistic regression analyse showed that smoking was an independent risk factor of NAFLD for patients with T2D (OR=2.055, 95%CI 1.324-3.188, *P*=0.001).

**Conclusion:** Smoking plays an important role in the development of NAFLD for patients with T2D. The underlying mechanism remain to be further studied.

**Key words:** non-alcoholic fatty liver disease; type 2 diabetes; smoking; influence factor