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**Aspirin is associated with lower risk of pancreatic cancer and cancer-related mortality in patients with diabetes mellitus**

**Tan J, Mao X, Cheng H, *et al.* Aspirin is associated with lower risk of pancreatic cancer and cancer-related mortality in patients with diabetes mellitus. *Gut* 2025; 74: 603-612. doi: 10.1136/gutjnl-2024-333329**

This population-based retrospective cohort study investigated the association between aspirin use and pancreatic cancer (PC) risk among newly diagnosed patients with type 2 diabetes mellitus (T2DM) in Hong Kong. Using data from 343,966 patients (2001–2015) with a median follow-up of 10.5 years, Tan *et al.,* applied time-dependent Cox models and propensity score (PS) matching to mitigate immortal time bias and confounding.

Aspirin use (≥180 days/year) was associated with a 42% reduced risk of PC (aHR (adjusted Hazard ratio): 0.58; 95% CI: 0.49–0.69) and a 57% reduction in PC-related mortality (aHR: 0.43; 95% CI: 0.34–0.53). Aspirin users also experienced a 22% lower all-cause mortality (aHR: 0.78; 95% CI: 0.76–0.80). A clear dose- and duration-response relationship was demonstrated, with the most pronounced benefits seen in those using aspirin >10 years and at doses >100 mg/day.

Subgroup analyses confirmed consistent benefits across age, sex, BMI (body mass index), glycaemic control, and most medication strata. Notably, aspirin's protective effect was more evident in long-standing T2DM than new-onset T2DM, and absent in patients with alcohol use disorder. Mechanistically, aspirin’s COX (Cyclooxygenase) inhibition, anti-inflammatory, and anti-angiogenic properties likely underpin its chemopreventive potential.

This is the first study to robustly demonstrate a significant inverse association between aspirin use and PC incidence and mortality specifically in the T2DM population. The findings suggest aspirin may be a viable oncopreventive strategy for PC in this high-risk group, warranting further prospective evaluation to assess causality and risk-benefit balance.