Methods Cases of cholangiocarcinoma were identified in Norwich (years 2004–2010) and Leicester (year 2007) from multi-disciplinary team meeting clinical databases. Inclusion required diagnostic evidence from CT scans and/or histology. Controls were patients, of similar ages and gender, with basal cell carcinomas treated in the dermatology departments at each hospital. The case notes of all subjects were reviewed to obtain confirmatory clinical information on cholangiocarcinoma and type 2 diabetes. Data were analysed using unconditional logistic regression to calculate ORs with 95% CIs, adjusted for age at diagnosis and gender.

Results A total of 80 cases of cholangiocarcinoma (median age at diagnosis = 76 yrs, range 41–96 years, 51% men) and 411 controls were identified. All patients had radiological evidence of cancer, with 86% involving the extrahepatic biliary system. The median survival of cases was 158 days (range 2–1092 days). There was a statistically significant increase in the odds of developing cholangiocarcinoma for those with type 2 diabetes (OR=3.00, 95% CI 1.65 to 16.08). When the effect of type 2 diabetes was adjusted for use of oral hypoglycaemics, the associations were maintained (metformin OR=3.60, 95% CI 1.26 to 10.25 and sulphonylureas, OR=6.51, 95% CI 2.31 to 17.18).

Conclusion This epidemiological data supports the biological evidence for type 2 diabetes promoting the development of cholangiocarcinoma. Type 2 diabetes should be considered as a potential risk factor for cholangiocarcinoma in future aetiological studies.

Competing interests None declared.

REFERENCE