Competing interests None.

Keywords aspirin, cholangiocarcinoma, NSAIDs, statins.

PTH-125

THE ROLE OF NON-STEROIDAL ANTI-INFLAMMATORY DRUGS AND STATINS IN THE AETIOLOGY OF CHOLANGIOCARCINOMA: PRELIMINARY RESULTS FROM A CASE-CONTROL STUDY IN TWO UK CENTRES

doi:10.1136/gut.2011.239301.526

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Introduction The incidence of cholangiocarcinoma has increased worldwide with the mortality remaining high. The aetiology is largely unknown but aspirin, non-steroidal anti-inflammatory drugs (NSAIDs) and statins may be protective. The growth of cholangiocarcinoma cells is inhibited in both in vitro and animal models by NSAIDs, which block the Cox-2 enzyme, and also statins inhibit the production of intracellular mediators stimulating the cell cycle. The epidemiological data in this area is minimal with no studies having specifically investigated aspirin or statins in western populations. The aim of this study was to investigate if there was a negative association between these medications and the development of cholangiocarcinoma in two centres in The UK.

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

Results A total of 77 cases of cholangiocarcinoma (median age at diagnosis of 76 years, range 41–96 years, 51% men) and 251 controls were identified. All patients had radiological evidence of cancer and 29% had histological confirmation, with 85% involving the extrahepatic biliary system. The median survival of all patients was 3.6 months (IQ range 0.9–8.0 months). There was a borderline statistically significant negative association between aspirin use and the occurrence of cholangiocarcinoma (OR 0.55, 95% CI 0.28 to 1.07, $p=0.08$) but no association with NSAID use (OR 0.49, 95% CI 0.16 to 1.48 $p=0.21$) or statins (OR 0.71, 95% CI 0.37 to 1.38, $p=0.31$).

Conclusion This epidemiological data may support biological evidence for aspirin protecting against the development of cholangiocarcinoma. The work is progressing to identify further subjects to more precisely define the effect size. Aetiological work in other populations is required to determine if the association with aspirin is consistent although its use should currently be measured in aetiological studies of cholangiocarcinoma.