

Relationship Between Biliary Tract Cancer And Coffee Consumption In Urban Population

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Background : Carcinoma of the gallbladder is a rare malignancy generally associated with a late presentation and a poor prognosis. Occupational exposures in the rubber, automobile, wood-finishing, oil, paper, chemical, textile, shoe, fiber and metal-fabricating industries lead to increased risk. To investigate the relationship between coffee consumption, biliary tract cancers and gallstone disease.

Methods : A population-based case-control study was conducted in urban Delhi city from 1 April 2019 to 31 August 2020 involving interviews with 627 new cases of biliary tract cancers (including 368 cases of gallbladder cancer, 191 cases of extrahepatic bile duct cancer and 68 cases of cancer of the ampulla of Vater) aged 35 to 74 years and 959 population controls frequency-matched to cases by gender and age in five-year group. 1037 patients of gallstone disease were selected from the same hospital. All subjects were interviewed in person by trained interviewers by use of a structured questionnaire. Unconditional logistic regression analysis was used to calculate adjusted odds ratio (OR) and 95% confidence interval (CI).

Results : Compared with coffee non-drinkers, current coffee consumption was inversely associated with risk of gallbladder cancer, extrahepatic bile duct cancer and gallstone disease among females with OR of 0.57 (95% CI: 0.34-0.96), 0.53 (95% CI: 0.27-1.03) and 0.71 (95% CI: 0.51-0.99), respectively. OR declined with younger age at initiation of coffee drinking and with longer duration of coffee consumption (P for trend < 0.05). Among males, the corresponding OR were mostly below one, although not statistically significant.

Conclusions : Coffee consumption may decrease the risk of cancers of the gallbladder and extrahepatic bile duct among females. The protective effect appears to be independent of gallstone disease.

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