

Distinct Prognosis Of Biliary Tract Cancer According To Tumor Location, Stage, And Treatment: A Population-based Study

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Background : Biliary tract cancer (BTC) affects many distinct regions that have been inconsistently identified in epidemiological and clinical studies. This study investigated the treatment pattern and prognosis of BTC according to tumor location using national cancer registry data.

Methods : The Korea Central Cancer Registry data of 97,676 patients with BTC from 2006 to 2017 were retrospectively reviewed. The Surveillance, Epidemiology, and End Results (SEER) stage, first course of treatment (FT) administered within four months after diagnosis, and 5-year relative survival rate (5YRS) were analyzed for gallbladder (GB), intrahepatic bile duct (IHBD), extrahepatic bile duct (EHBD), and ampulla of Vater (AoV) cancers.

Results : The proportion of localized and regional (L&R) stage was the highest in AoV cancer (78.2%), followed by EHBD (68.3%), GB (52.6%), and IHBD (49.5%) cancers, which significantly increased over time, except for IHBD cancer. Overall, the "no active treatment" (NT) rate was the highest in IHBD (52.8%), followed by EHBD (49.5%), GB (39.6%), and AoV cancers (28.9%). The 5YRS was the highest in AoV (48.5%), followed by GB (28.5%), EHBD (19.9%), and IHBD (10.8%) cancers, which significantly improved over time ($p < 0.001$), except for IHBD cancer. Older patients had a higher risk of receiving NT in each tumor location after adjusting for period and sex ($p < 0.001$).

Conclusions : Due to SEER stage distribution, treatment pattern, and prognosis, BTC statistics should be reported separately according to tumor location. Efforts are required to reduce the proportion of NT to improve the overall survival outcomes of BTC, especially in elderly patients.

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