

## Outcomes of FOLFOX4 chemotherapy as a second-line treatment for advanced biliary tract cancer

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**Background:** In patients with advanced biliary tract cancer (aBTC) there was no standard treatment after disease progression on platinum-gemcitabine. We, therefore, conducted a study to evaluate the outcomes and adverse events of FOLFOX4 as second-line chemotherapy.

**Methods:** This was a retrospective study included aBTC patients who previously treated with platinum/gemcitabine and received the FOLFOX4 regimen as a second-line treatment in Srinagarind hospital between June 2014 and June 2018. Survival analysis was done using the Kaplan-Meier method and the log-rank test.

**Results:** A total of 19 patients of biliary tract cancer were included, the median age was 59 years (42-75) and 14 patients (73.6%) were male. Most patients had ECOG 1 (16 patients, 85%) and were intrahepatic subtype in primary. The median progression-free survival and overall survival (OS) were 2.6 and 6.2 months respectively. The 6- and 12-month survival rate was 52.6 and 11.8%. The median OS in patients who achieved tumor control was significantly longer than who progressed on FOLFOX (9.1 vs 4.7 months), hazard ratio 0.11 (95% CI 0.12-0.73,  $p=0.02$ ). Grade 3 or higher adverse events were observed in seven patients (36.8%), with no patient discontinue the treatment from toxicity.

**Conclusions:** In patients with aBTC who progressed after platinum-gemcitabine, FOLFOX4 is effective and can be administered safely.

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