## Phase II trial of combination chemotherapy with gemcitabine, 5-fluorouracil and cisplatin for advanced cancers of the bile duct, gallbladder, and ampulla of Vater

Byeong Seok Sohn<sup>1</sup>, Young Jin Yuh<sup>1</sup>, Ki-hwan Kim<sup>2</sup>, Tae Joo Jeon<sup>1</sup>, Nam Sun Kim<sup>1</sup>, and Sung Rok Kim<sup>1</sup>

Departments of <sup>1</sup>Internal Medicine and <sup>2</sup>Surgery, Sanggye Paik Hospital, Inje University College of Medicine, Seoul, Korea

## ABSTRACT

Aims and background. For advanced cancers of the bile duct, gallbladder and ampulla of Vater, there are only a few treatment options. We explored the efficacy of the combination of gemcitabine, 5-fluorouracil and cisplatin for advanced biliary cancers.

**Methods.** From September 2003 to April 2010, 28 patients with recurrent or metastatic biliary tract cancer were enrolled. A treatment regimen consisting of gemcitabine  $(800 \text{ mg/m}^2 \text{ at a fixed dose rate on days 1 and 8), 5-fluorouracil (1 g/m²/day continuous infusion for 4 days) and cisplatin (60 mg/m² on day 2) was repeated every 3 weeks.$ 

**Results.** One (3.6%) patient showed complete response, 8 (28.6%) partial response, 14 (50%) stable disease and 5 (17.9%) disease progression. Overall, the objective response rate was 32.1% (95% CI, 17.9-50.6%) and the disease control rate was 82.1% (95% CI, 64.4-92.1%). Median progression-free survival and overall survival were 7.6 months (95% CI, 5.5-9.7) and 11.2 months (95% CI, 6.8-15.5), respectively. G3/4 neutropenia was observed in 44 (24.3%) of 181 cycles and G3/4 thrombocytopenia in 48 (26.5%) of 181 cycles. There was no treatment-related mortality.

**Conclusions.** The combined regimen of gemcitabine, 5-fluorouracil and cisplatin has comparable activity for patients with advanced cancer of the bile duct, gallbladder and ampulla of Vater. Toxicity was tolerable but substantial.

**Key words:** biliary tract cancer, cisplatin, 5-fluorouracil, gemcitabine, overall survival, response.

Acknowledgments: This work was supported in part by an Inje University research grant. We also thank Myeong Hee Kang and Chun Ja Lee for their research assistance and patient care.

Conflict of interest: None declared.

Correspondence to: Sung Rok Kim, MD, PhD, Department of Internal Medicine, Inje University Sanggye Paik Hospital 761-1, Sanggye-7-dong, Nowon-gu, Seoul 139-707, Korea. Tel +82-2-950-1990; fax +82-2-950-1954; email srkjoy@paik.ac.kr

Received October 4, 2012; accepted December 4, 2012.