

An Investigation of the Off-Label Use of Bevacizumab

Tao LIU, Zhuo-Jia CHEN, Zi-Chao LIN, Fu-Qin CHEN & Hong-Bing HUANG *

*Department of Pharmacy, Sun Yat-sen University Cancer Center;
State Key Laboratory of Oncology in South China;
Collaborative Innovation Center for Cancer Medicine, Guangzhou 510060, China*

SUMMARY. This study aims to investigate the off-label use of bevacizumab and provide references for its clinical use. A total of 375 patients who were prescribed bevacizumab were retrospectively analysed according to the State Food and Drug Administration (SFDA), Food and Drug Administration (FDA), and National Comprehensive Cancer Network (NCCN) guidelines. Among the 375 patients, 130 (34.67%) received bevacizumab for treatment of metastatic colorectal cancer (mCRC) according to the guidelines approved by the SFDA. On the other hand, bevacizumab was prescribed to 245 (65.33%) patients for lung cancer, hepatocellular carcinoma, lymphoma, soft-tissue sarcoma, breast cancer, ovarian cancer, nasopharyngeal carcinoma, melanoma, gastric carcinoma, pancreatic cancer, and other unknown primary malignant tumour. Bevacizumab was recommended for the treatment of non-small-cell lung cancer (NSCLC), breast cancer, ovarian cancer, and soft tissue sarcoma according to the FDA and NCCN guidelines. Other off-label uses of bevacizumab are still being evaluated in ongoing phase II or III clinical trials. There is a need to establish specific laws, guidelines, and professional consensus for the off-label use of bevacizumab.

RESUMEN. Este estudio apunta a investigar el uso no indicado del bevacizumab y provee referencias para su uso clínico. Un total de 375 pacientes que recibieron bevacizumab fueron analizados retrospectivamente de acuerdo a las pautas de la SFDA, FDA y NCCN. De los 375 pacientes, 130 (34,67%) recibieron bevacizumab para el tratamiento de cáncer metastásico colorrectal, de acuerdo con las pautas aprobadas por la SFDA. Por otra parte, el bevacizumab fue prescrito a 245 (65,33%) pacientes con cáncer de pulmón, de ovario, carcinoma nasofaríngeo, melanoma, carcinoma gástrico, cáncer pancreático y otros tumores malignos primarios desconocidos. El bevacizumab está recomendado para el tratamiento de células tumorales grandes de pulmón (NSCLC), cáncer de mama, cáncer de ovario y sarcoma de tejidos blandos, de acuerdo a las pautas de la FDA y de la NCCN. Otras aplicaciones del bevacizumab están siendo aún evaluadas y se encuentran en ensayos clínicos de Fase III o III. Resulta necesario establecer leyes específicas, pautas y consenso profesional para el uso no indicado de bevacizumab.

KEY WORDS: bevacizumab, clinical use, off-label uses.

* Author to whom correspondence should be addressed. *E-mail:* hongbinghuangcn@126.com