

HBP SURGERY WEEK 2023

MARCH 23 THU - 25 SAT, 2023 | BEXCO, BUSAN, KOREA www.khbps.org & The 58th Annual Congress of the Korean Association of HBP Surgery



ABST-0067

Clinical Features, Risk Factors And Prediction Model Of Severe Post-hepatectomy Pleural Effusion For Patients With Hepatocellular Carcinoma: A Multicentre Analysis Of 4,715 Patients

Zhongqi FAN¹, Yongkang DIAO², Chao LI², Lanqing YAO², Chengwu ZHANG³, Yongyi ZENG⁴, Zixiang CHEN⁵, Yahao ZHOU⁶, Weimin GU⁷, Timothy M. PAWLIK⁸, Wan Yee LAU⁹, Guoyue LV¹, Tian YANG^{*2}

¹Department Of Hepatobiliary And Pancreatic Surgery, General Surgery Center, First Hospital Of Jilin University, CHINA

²Department Of Hepatobiliary Surgery, Eastern Hepatobiliary Surgery Hospital, Second Military Medical University (Navy Medical University), CHINA

³Department Of General Surgery, Cancer Center, Division Of Hepatobiliary And Pancreatic Surgery, Zhejiang Provincial People's Hospital, Affiliated People's Hospital, Hangzhou Medical College, CHINA ⁴Department Of Hepatobiliary Surgery, Mengchao Hepatobiliary Hospital, Fujian Medical University, CHINA ⁵Department Of General Surgery, The First Affiliated Hospital Of Anhui Medical University, CHINA ⁶Department Of Hepatobiliary Surgery, Pu'er People's Hospital, CHINA ⁷The First Department Of General Surgery, The Fourth Hospital Of Harbin, CHINA ⁸Department Of Surgery, Ohio State University, Wexner Medical Center, UNITED STATES OF AMERICA ⁹Faculty Of Medicine, The Chinese University Of Hong Kong, CHINA

Background : Severe post-hepatectomy pleural effusion (SPHPE) can have serious consequences, with some cases being detected after hospital discharge and leading to readmission. We sought to identify clinical features and risk factors of SPHPE among patients undergoing resection of hepatocellular carcinoma (HCC) and to develop an individualized prediction model.

Methods : Clinical data of patients undergoing hepatectomy for HCC were obtained from a multicentre database. SPHPE was defined as symptoms of respiratory distress that required chest drainage during hospitalization or within 30 days after hospital discharge. Using covariates from the univariate and multivariate analyses, a nomogram-based online calculator was constructed to predict the probability of SPHPE.



HBP SURGERY WEEK 2023

MARCH 23 THU - 25 SAT, 2023 | BEXCO, BUSAN, KOREA www.khbps.org

& The 58th Annual Congress of the Korean Association of HBP Surgery



Results : Among 4,715 analytic patients, 250 (5.3%) experienced SPHPE at a median postoperative day 7 (interquartile range: 5~14). Among these 250 patients, 75.2% had other complications; 46 (18.4%) had SPHPE detected after hospital discharge. Postoperative length-of-stay, as well as 30- and 90-day mortality were higher among patients with SPHPE versus patients without (median 18 days, 6.4% and 8.8% vs. median 10 days, 1.0% and 2.9%, all P<0.001). American Society of Anesthesiologists score >2, portal hypertension, tumor size >5.0 cm, intraoperative blood transfusion, open hepatectomy, hepatectomy involving segment 7/8, and operation time >180 min were independent risk factors associated with SPHPE. A calculator was constructed and demonstrated good predictive performance (the area under the curve: 0.764).

Conclusions : SPHPE prolonged hospital stay, increased occurrence of other complications, and postoperative readmission. An online calculator was proposed that can predict risk of SPHPE among individual patients undergoing resection of HCC.

Corresponding Author : Tian YANG (yangtianehbh@smmu.edu.cn)