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Clinicopathologic characteristics of Intraductal Papillary Neoplasm of Bile duct (IPNB) after central review: Korean multi-center collaboration study

Jae Ri Kim¹, Jin-Young Jang¹, Wooil Kwon¹, Sun-Whe Kim¹, Dong Wook Choi², Shin Hwang³, Dong-Sik Kim⁴, Ho-Seong Han⁵, Yang Won Nah⁶, Sang Jae Park⁷, Hyungil Seo⁸, Koo Jeong Kang⁹, Jae Do Yang¹⁰, Chang-Sup Lim¹¹, Sung Ho Cho¹², Young Hun Roh¹³, Chi-Young Jeong¹⁴, Kwang-Sik Chun¹⁵, Ho Gak Kim¹⁶, Chong-Woo Chu¹⁷, Hong Jin Kim¹⁸, Sun-Hyung Joo¹⁹, Il Young Park²⁰, Seung Eun Lee²¹, Hyeon Kook Lee²², Hongbeom Kim²³

¹ Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea

² Department of Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul 06351, Republic of Korea.

³ Division of Hepatobiliary Surgery and Liver Transplantation, Department of Surgery, University of Ulsan College of Medicine, Seoul, South Korea.

⁴ Division of HBP Surgery, Department of Surgery, Korea University College of Medicine, Seoul, Korea.

⁵ Department of Surgery, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Republic of Korea.

⁶ Department of Surgery, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, South Korea.

⁷ Center for Liver Cancer, National Cancer Center, Goyang-si, Gyeonggi-do, Republic of Korea.

⁸ Department of Surgery, Pusan National University Hospital and Pusan National University School of Medicine, Busan, Republic of Korea; BioMedical Research Institute, Pusan National University Hospital, Busan, Republic of Korea.

⁹ Division of Hepatobiliary-Pancreatic Surgery, Department of Surgery, Keimyung University School of Medicine, Dongsan Medical Center, 56 Dalsungro, Junggu, Daegu City, Republic of Korea.

¹⁰ Department of Surgery, Chonbuk National University Medical School, Jeonju, Korea.

¹¹ Department of Surgery, Seoul Metropolitan Government - Seoul National University Boramae Medical Center, Seoul, Korea.

¹² Department of Surgery, Dankuk University College of Medicine, Seoul, South Korea.

¹³ Department of Surgery, Dong-A University Hospital, Busan, South Korea.

¹⁴ Department of Surgery, Gyeongsang National University Hospital, Gyeongsang National University Postgraduate School of Medicine, 79 Gangnam-ro, Jinju, 52727, Republic of Korea.

¹⁵ Department of Surgery, School of Medicine, Chungnam National University Hospital, Daejeon 301-721, Republic of Korea.

¹⁶ Department of Internal Medicine, Daegu Catholic University School of Medicine, Daegu, Korea.

¹⁷ Department of Surgery, Pusan National University Yangsan Hospital, Yangsan, Korea.

¹⁸ Department of Surgery, Yeungnam University Medical Center, Daegu.

¹⁹ Department of Surgery, School of Medicine, Kyung Hee University, Seoul, Korea.

²⁰ Department of Surgery, Bucheon St. Mary Hospital, College of Medicine, The Catholic University of Korea, Bucheon, Korea.

²¹ Department of Surgery, Chung-Ang University College of Medicine, Republic of Korea

²² Department of Surgery, Ewha Womans University Mokdong Hospital, Ewha Womans University School of Medicine, Seoul, Korea.

²³ Department of Surgery, Dongguk University, College of Medicine, Gyeongju, Gyeongsang Province

Introduction : The previous reports about intraductal papillary neoplasm of the bile duct (IPNB) were case series with small numbered-patients due to the rarity of this disease. As one of the prevalent nations of cholangiocarcinoma, this is Korean side multi-center study and the aim is to clarify the clinicopathologic features of IPNB and to find out the optimal morphologic criteria with large data from Korea.

Methods : Between 1997 and 2016, 589 patients were included in this study with final diagnosis of IPNB from 23 tertiary referral centers of Korea. Every case was reconfirmed and finally 368 patients were selected after exclusion of other diagnosis through central pathologic review by 4 specialized biliary-pancreas pathologists. We reviewed the preoperative image data and applied 'modified anatomical classification' which focused on the level of main lesion to compare the morphological features.

Results : Patient's mean age was 65.5 years. The 5-year overall survival rate of all the patients was 78.9% and 81 (23.1%) patients underwent recurrence during the follow-up periods. Among 368 IPNB patients, 249 (67.7%) had intrahepatic lesions and 101 (27.4%) had extrahepatic lesions on preoperative images. We found out that the extrahepatic type had a higher rate of invasive cancer, lymph node metastasis and recurrence. The intrahepatic type had higher rate of gastric type and high grade dysplasia.

Conclusion : Intraductal papillary neoplasm of bile duct (IPNB) is a relatively rare disease category. Multi-center study is necessary for reliable diagnostic criteria in pathology and radiology. The 'modified anatomical classification' is a simple and intuitive criteria which can help to determine the treatment strategy and show some correlations with histologic subtype and pathologic phenotypes. Further analysis with Korea-Japan combined data will be updated soon.