A 74-year-old man was admitted to our hospital with right upper quadrant pain. Laboratory data on admission were as follows: aspartate transaminase (AST) 261 IU/L, alanine transaminase (ALT) 70 IU/L, total bilirubin 0.9 mg/dL, alkaline phosphatase 337 IU/L, and γ-glutamyl transpeptidase 552 U/L. Magnetic resonance cholangiopancreatography (MRCP) revealed similar findings to those of the MRCP. The CBD stones were removed successfully using a retrieval basket after endoscopic sphincterotomy (Fig. 2). After 4 days, the patient underwent cholecystectomy followed by hepaticojejunostomy.

To the best of our knowledge, this unusual anomaly has not been described previously. This case is of clinical significance because such an anomaly could lead to accidental dissection or ligation of the bile duct during laparoscopic cholecystectomy. Triple confluence of the right anterior and posterior segmental ducts and the left hepatic duct is quite rare [2]. The pattern of variation in some hepatic ducts may eventually lead to impaired bile flow and biliary stasis, subsequently resulting in bacterial overgrowth and formation of primary bile duct stones. Any ligation or dissection of the hepatic duct will result in potentially fatal complications, such as bile leakage, partial biliary obstruction, ductal stenosis, cholangitis, or biliary cirrhosis [3–5]. In order to avoid serious iatrogenic injuries of the bile duct, thorough interpretation and accurate diagnosis of any anatomical variation of the biliary tree is emphasized.

Endoscopy_UCTN_Code_CCL_1AZ_2AK

Competing interests: None

J. H. Yang, K. H. Kim, T. N. Kim
Department of Internal Medicine, Yeungnam University College of Medicine, Daegu, Korea

References
1 Schafeld A, Hankins J, Sutherland F. A case of cholecystohepatic duct with atrophic common hepatic duct. HPB 2003; 5: 261–263
2 De Filippo M, Calabrese M, Quinto S et al. Congenital anomalies and variations of the bile and pancreatic ducts: magnetic resonance cholangiopancreatography findings, epidemiology and clinical significance. La Radiologia Medica 2008; 113: 841–859

Corresponding author
T. N. Kim
Division of Gastroenterology and Hepatology
Department of Internal Medicine
Yeungnam University College of Medicine
317-1 Daemyung-dong
Nam-gu, Daegu
Korea
Fax: +82-53-6548386
tnkim@yu.ac.kr

Fig. 1 Magnetic resonance cholangiopancreatography (MRCP) findings. a Anterior coronal image demonstrating trifurcation of the bile ducts. The confluence of the anterior and posterior branches of the right hepatic duct has joined the left hepatic duct. b Posterior coronal image demonstrating the outlet of the cystic duct into the right posterior segmental duct (arrow).

Fig. 2 Endoscopic retrograde cholangiopancreatography (ERCP) findings. a Cholangiogram demonstrating low union of the right and left hepatic duct with calculus in the common bile duct. The arrows indicate the inferior margin of the liver. No gallbladder was seen because of chronic cholecystitis. b Magnified view demonstrating drainage of the cystic duct into the right posterior segmental duct (arrow).