

Endoscopic Biliary Irrigation with N-Acetylcysteine of Intraductal Papillary Mucinous Neoplasm of Bile Ducts

Yen-Chun Peng^{1,2} and Wai-Keung Chow^{3*}

¹Division of gastroenterology, Taichung Veterans General Hospital, Taichung, Taiwan

²School of Medicine, National Yang-Ming University, Taipei, Taiwan

³Division of Gastroenterology, Taichung Tzu-Chi Hospital, Taichung, Taiwan

Sixty-six year old man came to our hospital due to abnormal liver function test since May 2014. After serial image study, he was diagnosed as intraductal papillary mucinous neoplasm of biliary tract by magnetic resonance cholangiopancreatography (ERCP) and computed tomography (Figure 1a,1b,1c). He has dilated biliary tract fulfilled with mucin production. Jaundice is also determined due to mucin obstructed biliary tract. He wants to receive non-surgical treatment for his mucin producing biliary neoplasm.

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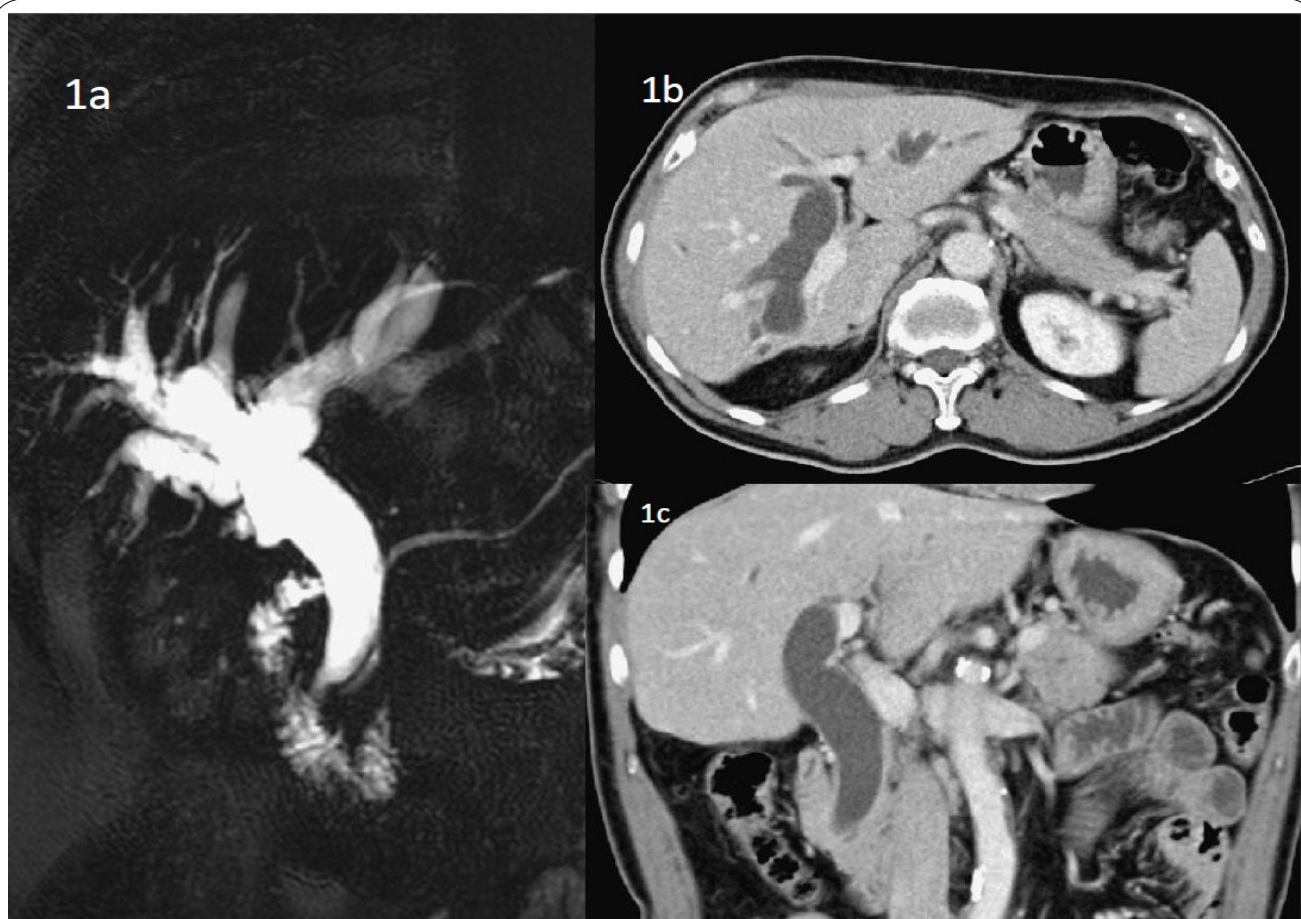


Figure 1: Intraductal papillary mucinous neoplasm of biliary tract by magnetic resonance cholangiopancreatography (ERCP) and computed tomography.

Percutaneous tranhepatic cholangial drainage (PTCD) was performed for biliary drainage. Besides, mucin cleaning by endoscopic retrograde cholangiogram (ERCP) with basket extraction was also performed periodically. However, due to the sticky of mucin, there are some difficulties in cleaning of biliary mucin by tradition basket in the previous serial ERCP with basket or balloon extraction. The fluoroscopy image showed mucin related poor biliary image to figure the biliary tract (Figure 2a, 2b).

Recently, we used N-Acetylcysteine, which is a mucolytic agent, mixed with normal saline (600 mg in 200 cc), and mixed with contrast

Corresponding Author: Dr. Wai-Keung Chow, Division of Gastroenterology, Taichung Tzu-Chi Hospital, No 66, Sec 1, Fong-Hsin Rd. Taichung, Taiwan; E-mail: wkchow2010@gamil.com

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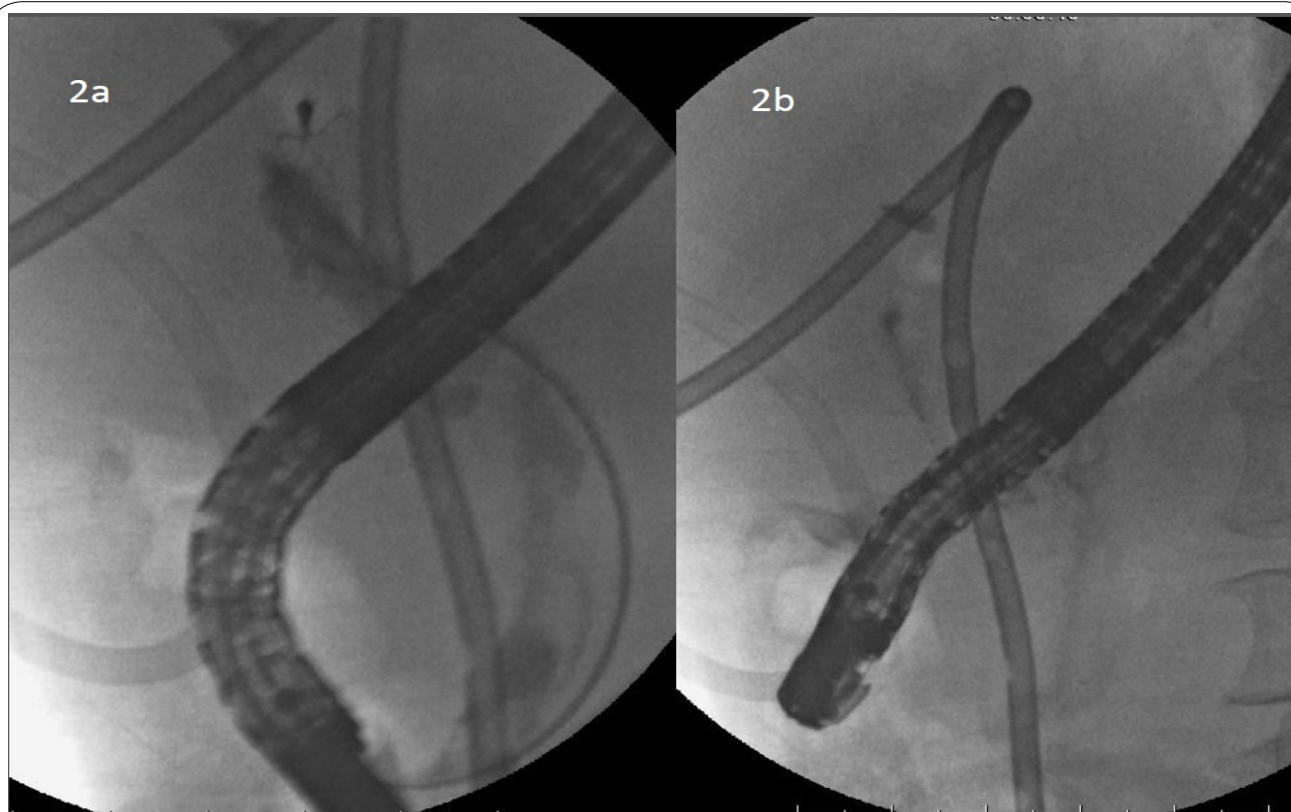


Figure 2: Luoroscopy image showed mucin related poor biliary image to figure the biliary tract.

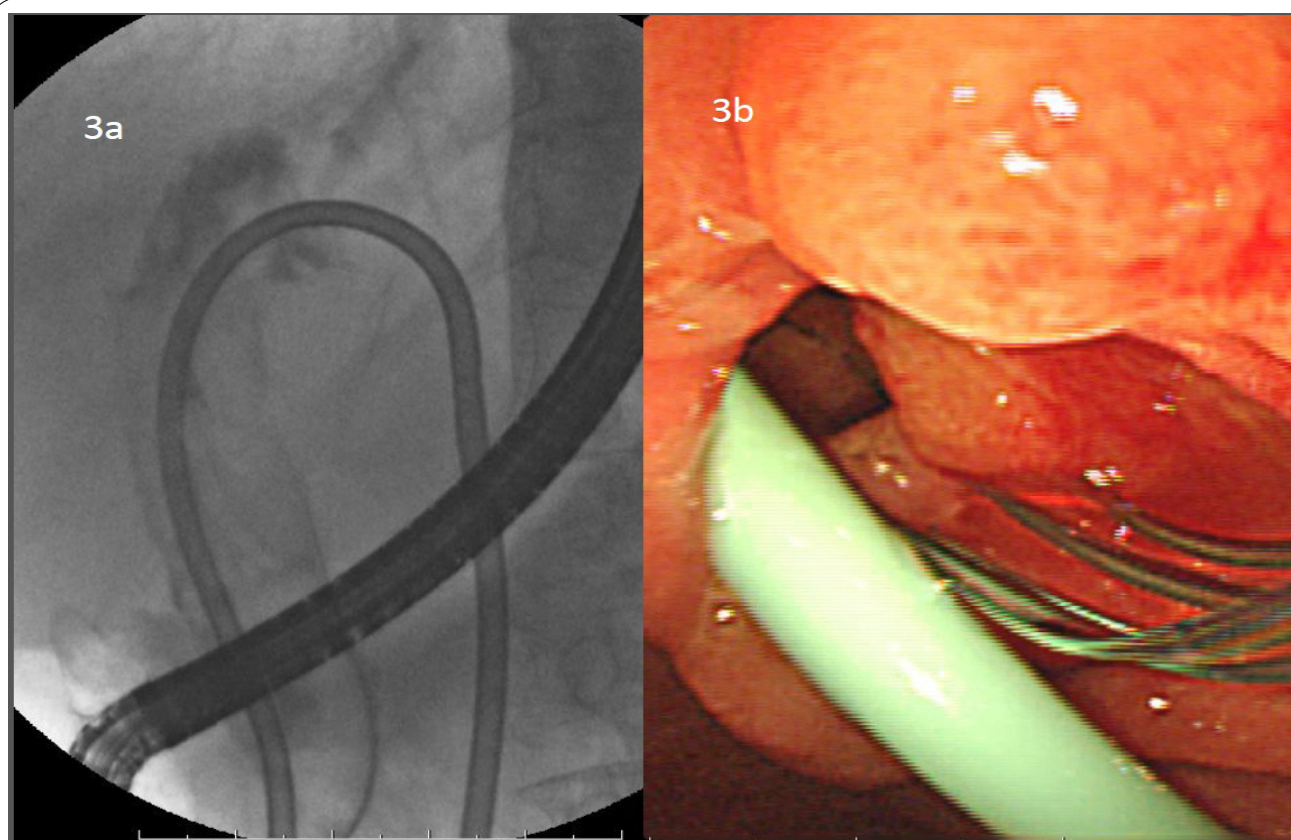


Figure 3: (a) N-Acetylcysteine mixed with normal saline (b) endoscopy of the impacted mucin of common bile duct orifice.

medium to irrigation of biliary mucin during ERCP. We could find that it decreased the viscosity of biliary mucin by basket extract and the endoscopic suctioning of mucin was also smooth. By image, the fluoroscopy could demonstrate a clear figure of biliary tract (figure 3a). By endoscopy, the impacted mucin of common bile duct orifice was also suctioned out completely (Figure 3b).

N-Acetylcysteine that decreases the viscosity of mucus, and is used for respiratory tract [1]. Additionally, it is a protected and mucolytic drug that could mellow tenacious mucous discharges or secretions. It is reported to be used for biliary mucin through nasobiliary catheter and PTCD for improving of symptoms [2, 3]. Our presentation demonstrated that normal saline mixed N-Acetylcysteine is also feasible in basket extract and suction by ERCP procedure.

Competing Interests

The authors declare that they have no competing interests.

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