Use of texture and color enhancement imaging to identify the pancreatic duct orifice in a patient with a pancreaticojejunal anastomotic stricture

An endoscopic approach to pancreaticojejunal anastomotic stricture (PJAS) using a balloon enteroscope in patients who have undergone pancreaticoduodenectomy is challenging [1–3]. Identification of the pancreatic duct orifice is often difficult because of complete PJAS. Herein, we report the case of a patient with a PJAS in whom a texture and color enhancement imaging (TXI)-equipped new-generation endoscopy system (EVIS X1; Olympus Medical Systems, Japan) [4] was used, which facilitated identification of the pancreatic duct orifice.

A 72-year-old woman with recurrent pancreatitis was referred to our facility. She had undergone pancreaticoduodenectomy (Child’s reconstruction) because of an intraductal papillary mucinous carcinoma. Computed tomography (CT) imaging revealed pancreatic duct dilatation and a pancreatic duct stone (▶Fig. 1). Therefore, endoscopic retrograde cholangiopancreatography (ERCP) was performed using a short-type single-balloon enteroscope (SIF-H290; Olympus Medical Systems, Tokyo, Japan) with a working length of 152 cm and a working channel of 3.2 mm in diameter [3] (▶Video 1). After reaching the site of the pancreaticojejunal anastomosis, we tried to locate the orifice of the pancreatic duct; however, it was unclear on white-light imaging (WLI) because of the PJAS (▶Fig. 2a). Therefore, we applied TXI, which resulted in the orifice of the pancreatic duct becoming clearer (▶Fig. 2b). Pancreatic duct cannulation could then be performed under TXI. Pancreatography confirmed pancreatic duct dilatation and a pancreatic duct stone (▶Fig. 3). A pancreatic duct stent was placed, which resulted in resolution of the patient’s pancreatitis (▶Fig. 4).

TXI is an imaging technique that optimizes three mucosal surface elements: structure, color, and brightness; it contributes to the improved observation of lesions [4]. TXI has also been reported to facilitate transpapillary biliary cannulation [5]. In this case, TXI was extremely
useful in the identification of the orifice of the pancreatic duct in a patient with PJAS. TXI could improve the success rate of ERCP using balloon enteroscopy in patients with a PJAS.

Endoscopy UCTN_Code_CCL_1AZ_2AI

Acknowledgments

We would like to thank Editage (www.editage.com) for English language editing.

Competing interests

The authors declare that they have no conflict of interest.

The authors

Yuki Tanisaka, Masafumi Mizuide, Akashi Fujita Rie Shiomi, Takahiro Shin, Dai Hirata, Shomei Ryozawa
Department of Gastroenterology, Saitama Medical University International Medical Center, Hidaka, Saitama, Japan

Corresponding author

Yuki Tanisaka, MD, PhD
Department of Gastroenterology, Saitama Medical University International Medical Center, 1397-1, Yamane, Hidaka, Saitama 350-1298, Japan
tanisaka1205@gmail.com

References


Bibliography

Endoscopy
DOI 10.1055/a-1945-9063
ISSN 0013-726X
published online 2022
© 2022. The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial license, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.
This section has its own submission website at https://mc.manuscriptcentral.com/e-videos