

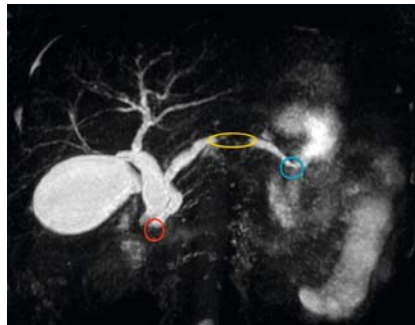
## Three pancreatic duct lesions in one patient found at an early stage by cholangioscopy



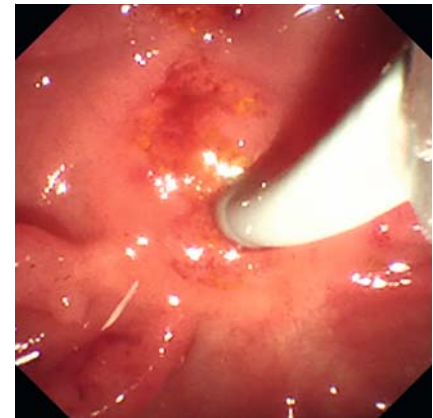
A 49-year-old woman with a common bile duct (CBD) stone underwent pre-operative magnetic resonance cholangiopancreatography (MRCP) at our hospital. This showed cholangiectasis, the CBD stone, and filling defects in the proximal and middle pancreatic duct (PD) (► **Fig. 1**). Endoscopic retrograde cholangiopancreatography (ERCP) was performed, therefore, and the CBD stone was removed successfully; subsequently, the PD was intubated and the filling defect in the mid-PD was confirmed by pancreatography.

A novel cholangioscope (eyeMax, 7 Fr; Micro-Tech) was inserted into the PD (► **Fig. 2**). A papillary lesion was found in the proximal PD (► **Fig. 3 a**, red circle area in ► **Fig. 1**). Another circumferential papillary lesion was found in the mid-PD (► **Fig. 3 b**, yellow ellipse area in ► **Fig. 1**). A third papillary lesion was discovered unexpectedly in the distal PD (► **Fig. 3 c**, blue circle area in ► **Fig. 1**), although there had been no sign of this at MRCP and ERCP (► **Video 1**). Finally, biopsy was conducted for the papillary lesion in the proximal PD, and the pathological diagnosis was pancreatic intraepithelial neoplasia-2 (► **Fig. 4**). No postoperative pancreatitis or other adverse events were encountered.

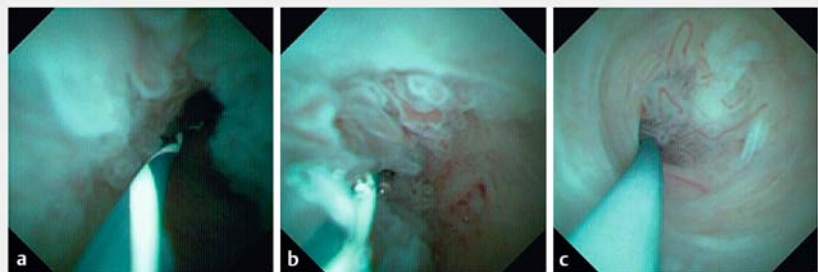
Pancreatic intraepithelial neoplasia is a precursor lesion for pancreatic cancer [1,2]; hence the early diagnosis was crucial in avoiding the progression of the lesion. The present study provides preliminary confirmation that cholangioscopic inspection of the PD can detect pancreatic intraepithelial neoplasia lesions, including those without any sign at MRCP and ERCP, in an accurate and timely fashion. Cholangioscopic inspection of the PD might be a relevant procedure for those patients with PD dilation or filling defects of unknown cause, although



► **Fig. 1** Magnetic resonance cholangiopancreatography (MRCP) showed filling defects in the proximal (red circle) and middle (yellow ellipse) pancreatic duct (PD). Subsequently, cholangioscopy also detected a lesion in the distal pancreatic duct (in the area shown by the blue circle).



► **Fig. 2** The cholangioscope was inserted into the PD.



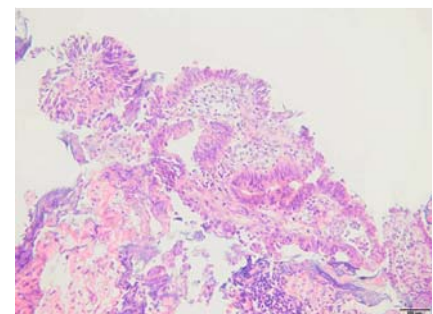
► **Fig. 3** The three pancreatic duct lesions under cholangioscopy. **a** A papillary lesion was found in the proximal PD (red circle area in ► **Fig. 1**). **b** A circumferential papillary lesion was found in the mid PD (yellow ellipse area in ► **Fig. 1**). **c** A third papillary lesion was seen unexpectedly in the distal PD (blue circle area in ► **Fig. 1**).

further prospective studies are warranted to confirm the safety and effectiveness of this technique.

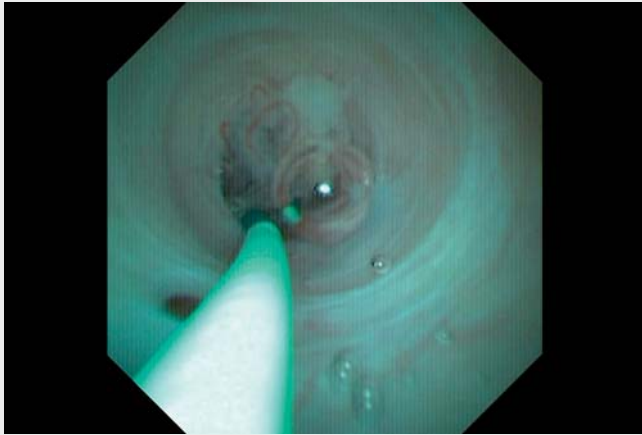
Endoscopy\_UCTN\_Code\_CCL\_1AZ\_2AB

### Competing interests

The authors declare that they have no conflict of interest.



► **Fig. 4** The pathological diagnosis for the proximal pancreatic duct lesion was pancreatic intraepithelial neoplasia-2.



**Video 1** Cholangioscopic inspection of the pancreatic duct.

## The authors

**Wengang Zhang<sup>\*</sup>, Ningli Chai<sup>\*</sup>, Yaqi Zhai, Shengzhen Liu, Huikai Li, Fei Gao, Enqiang Linghu**

Department of Gastroenterology, First Medical Center, Chinese PLA General Hospital, Beijing, China

## Corresponding author

**Enqiang Linghu, MD**

Department of Gastroenterology, First Medical Center, Chinese PLA General Hospital, 28 Fuxing Road, Haidian District, 100853 Beijing, China  
linghuenqiang@vip.sina.com

## References

- [1] Takaori K, Hruban RH, Maitra A et al. Pancreatic intraepithelial neoplasia. *Pancreas* 2004; 28: 257–262. doi:10.1097/00006676-200404000-00008
- [2] Haugk B. Pancreatic intraepithelial neoplasia – can we detect early pancreatic cancer? *Histopathology* 2010; 57: 503–514. doi:10.1111/j.1365-2559.2010.03610.x

## Bibliography

*Endoscopy* 2023; 55: E332–E333

DOI 10.1055/a-1981-2577

ISSN 0013-726X

published online 14.12.2022

© 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 wavers acc. to HINARI are available.

This section has its own submission website at <https://mc.manuscriptcentral.com/e-videos>

\* Co-first authors.