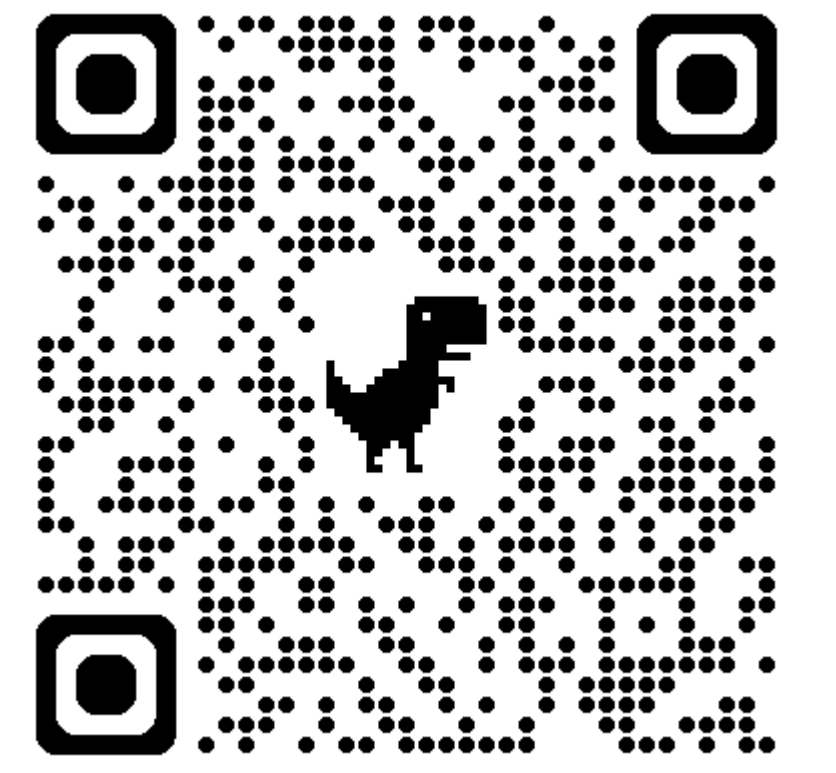




# Evaluating the effectiveness of endoscopic ultrasound-guided choledochoduodenostomy in malignant distal biliary obstruction: case series

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## INTRODUCTION

Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) has emerged as a feasible alternative method for biliary drainage in cases where endoscopic retrograde cholangiopancreatography (ERCP) cannot be performed. The European Society of Gastrointestinal Endoscopy (ESGE) endorses the preference for EUS-guided biliary drainage over percutaneous transhepatic biliary drainage in situations of unsuccessful ERCP for patients with cancer-related blockages in the lower part of the bile duct, provided there is local expertise.

## METHODS

We reviewed the safety and effectiveness of eight consecutive patients who underwent EUS-CDS from January 2023 until today at the Institute of Pancreatic Diseases, Semmelweis University.

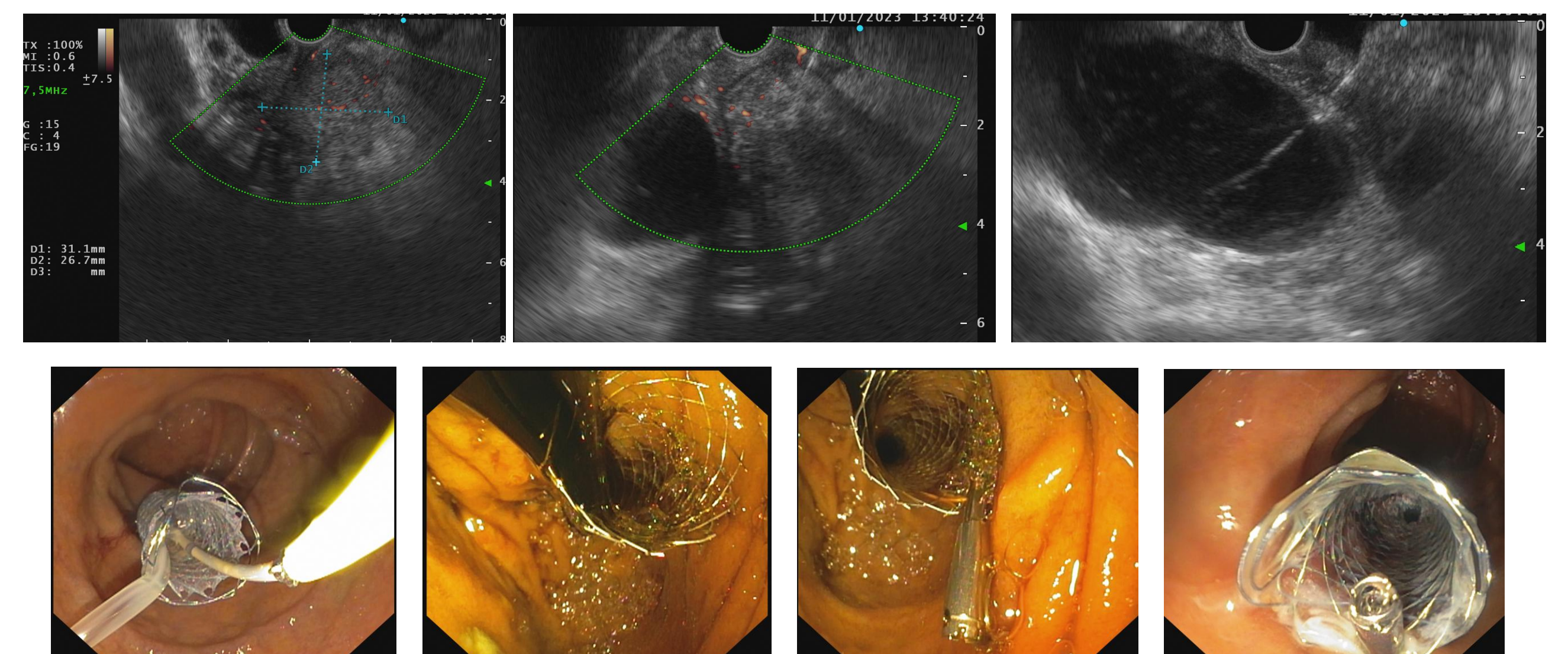


Figure 1. Steps of performing the EUS-CDS

## CASE PRESENTATION

Patient: 69-year-old male with no prior significant medical history  
Presentation (April 2023): Jaundice, pruritus, and 10 kg weight loss  
Imaging: CT showed a 51×23 mm hypodense mass in the pancreatic head, suspicious for malignancy  
Admission (July 6, 2023): Total serum bilirubin: 451.8  $\mu\text{mol/L}$   
Initial ERCP: Attempted biliary drainage; acute bleeding occurred at pre-cut site  
Repeat ERCP (3 days later): Cannulation unsuccessful due to papillary stenosis  
EUS-guided CDS performed same day:

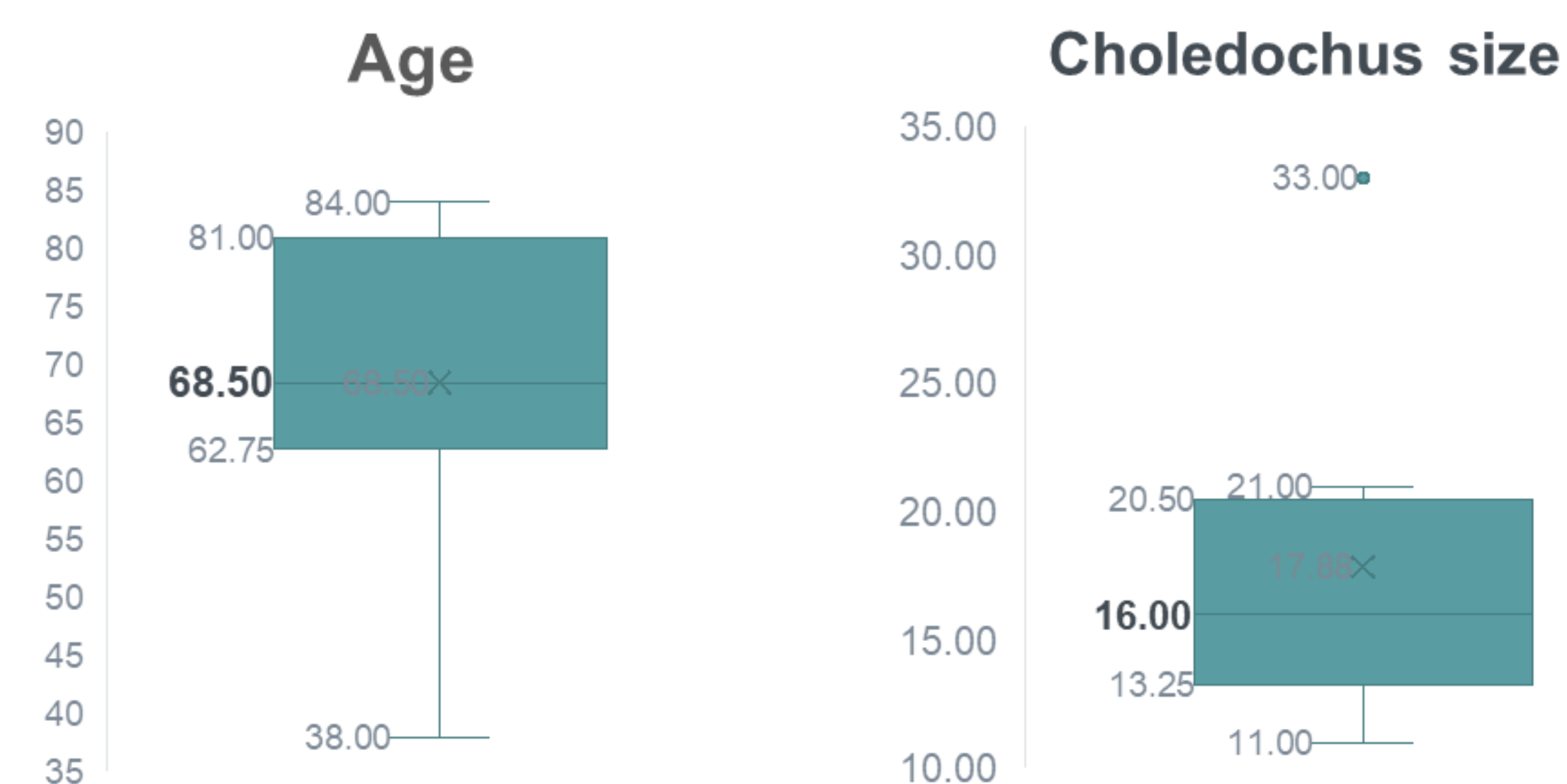
- 19G needle punctured dilated (14 mm) DHC
- 6 Fr cystotome used to access bile duct
- 6 cm partially covered biliary WallFlex SEMS placed; distal end clipped into duodenum
- Good bile drainage achieved

Post-procedure bilirubin levels:

- Day 3: 278.3  $\mu\text{mol/L}$
- 1 month: 127.6  $\mu\text{mol/L}$

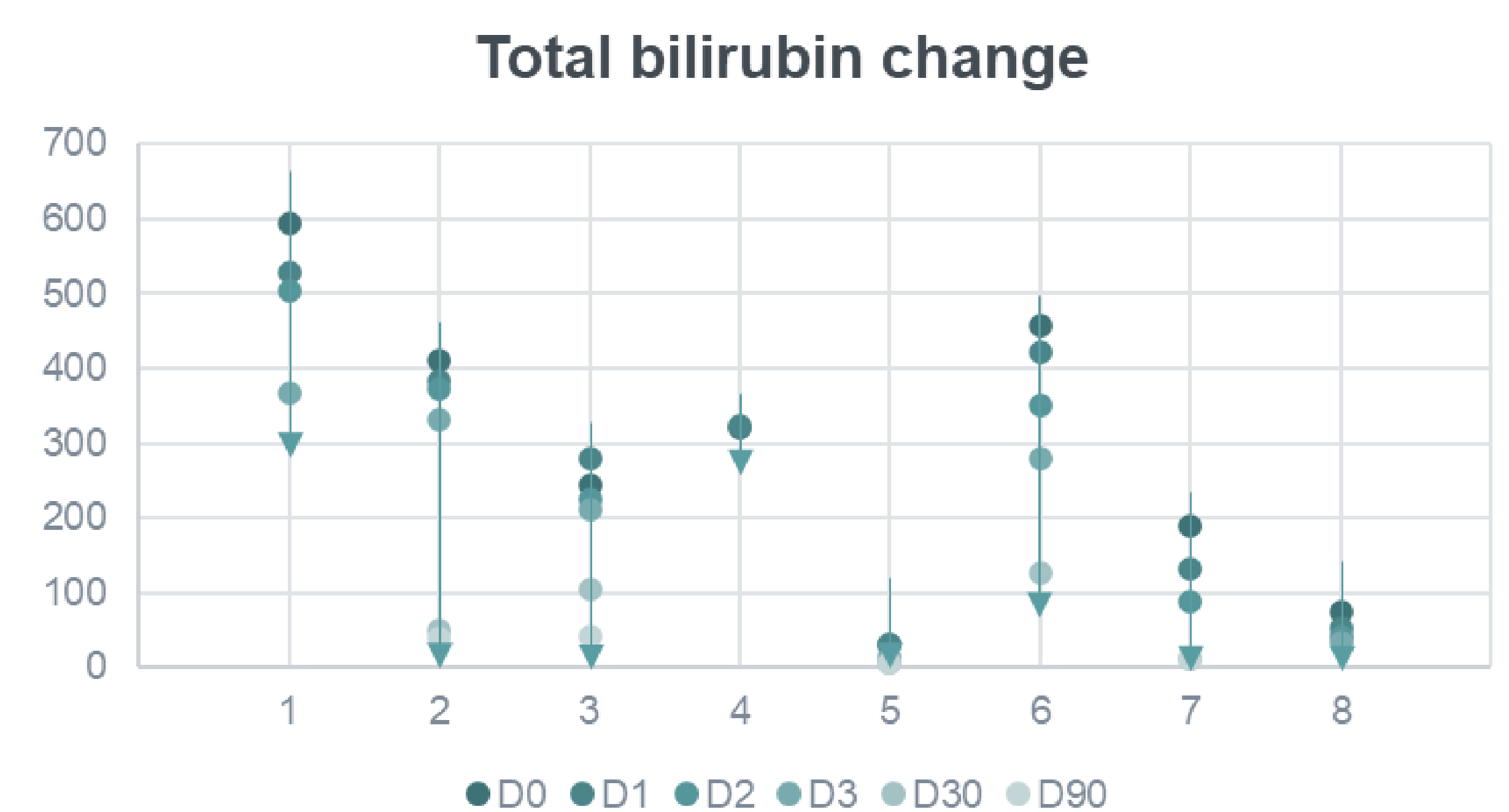
Date	Bilirubin
D0 (07.06)	451.8 $\mu\text{mol/L}$
D1	421.5 $\mu\text{mol/L}$
D2	350.8 $\mu\text{mol/L}$
D3	278.3 $\mu\text{mol/L}$
D30	127.6 $\mu\text{mol/L}$

Outcome: No need for reintervention; patient died in August 2023 due to disease progression



## RESULTS

Six of the patients were female, while their ages ranged between 38-84 years (mean 68.5, SD 14.8). The primary indications were obstructive jaundice secondary to pancreas cancer (PC) in seven patients and duodenal metastasis affecting the Vater papilla in one patient. The common bile duct (DHC) dilatation ranged between 11-33 mm (mean 17.9, SD 6.92). All EUS-CDS procedures were successful, providing effective biliary drainage as evidenced by a significant decrease in bilirubin levels from Day 0 to Day 3 (up to 50% drop). Minor complications were encountered but were managed conservatively. None of the cases required any additional biliary drainage interventions. Despite the technical success, all but one of the patients died due to the progression of their underlying malignancies within the follow-up period.



## CONCLUSION

EUS-CDS is a safe and effective method for biliary drainage in patients with malignant biliary obstruction where ERCP is not possible. However, this EUS-CDS should be done when local expertise is available.

Conflict of interest form has been submitted to service@epc.eu



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