



QUALITY IN ENDOSCOPY

ESGE / EASL / ESGAR SYMPOSIUM

ERCP & EUS

Budapest, Hungary November 13–14, 2015

Cannulation techniques:

Tips and tricks

Horst Neuhaus

Dpt. of Gastroenterology

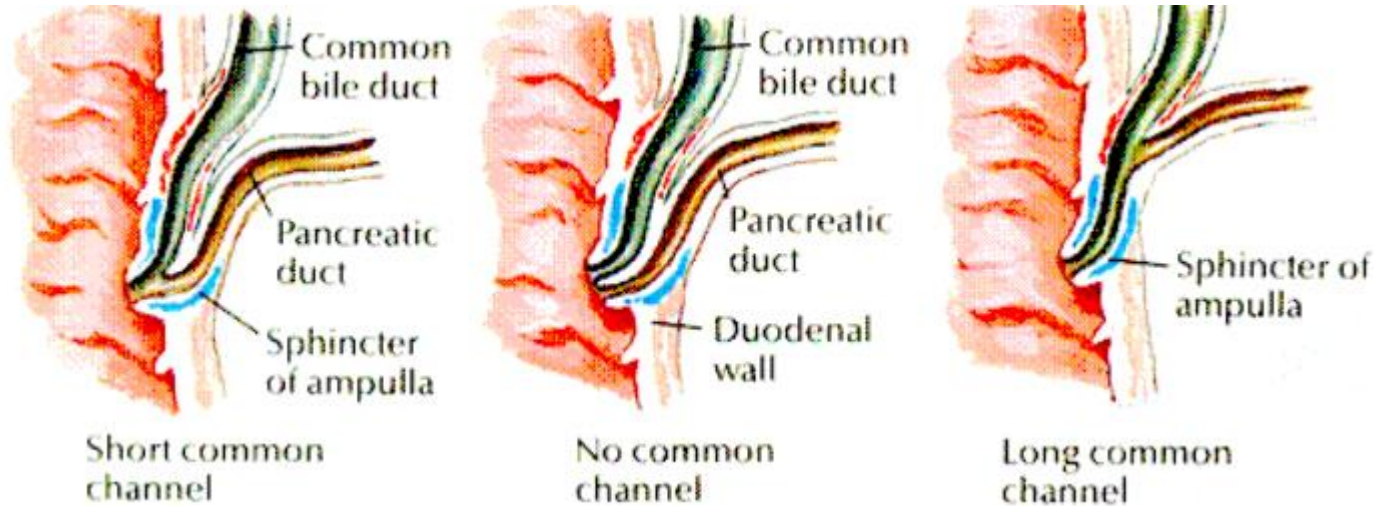
Evangelisches Krankenhaus

Düsseldorf, Germany

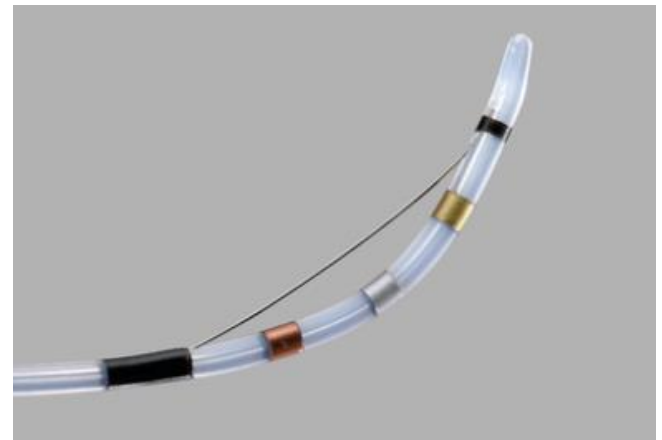
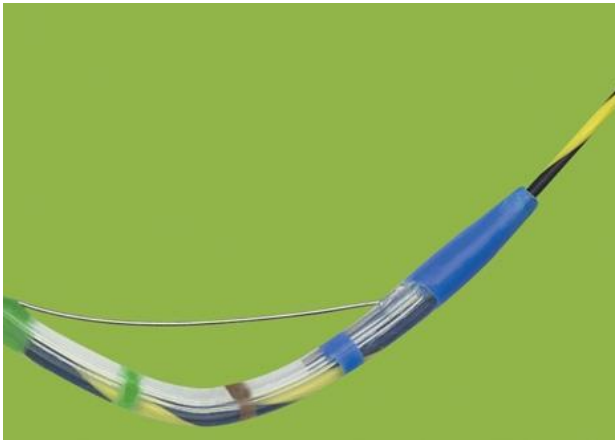
13.11.2015



Anatomy of the biliopancreatic ampulla

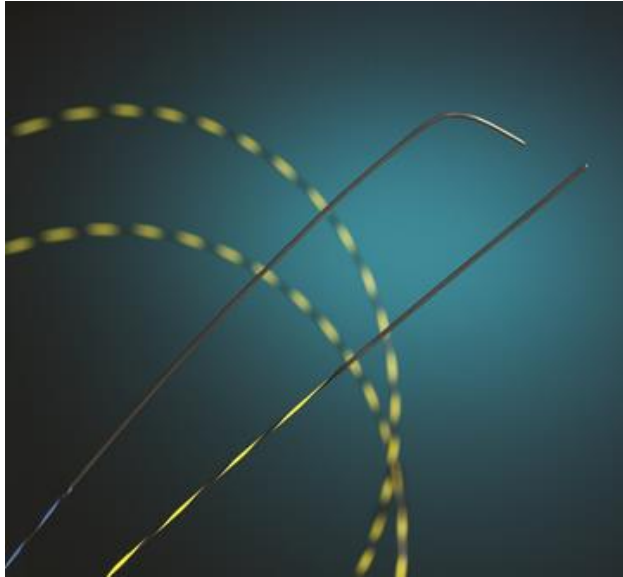


Accessories: Catheters and sphincterotomes



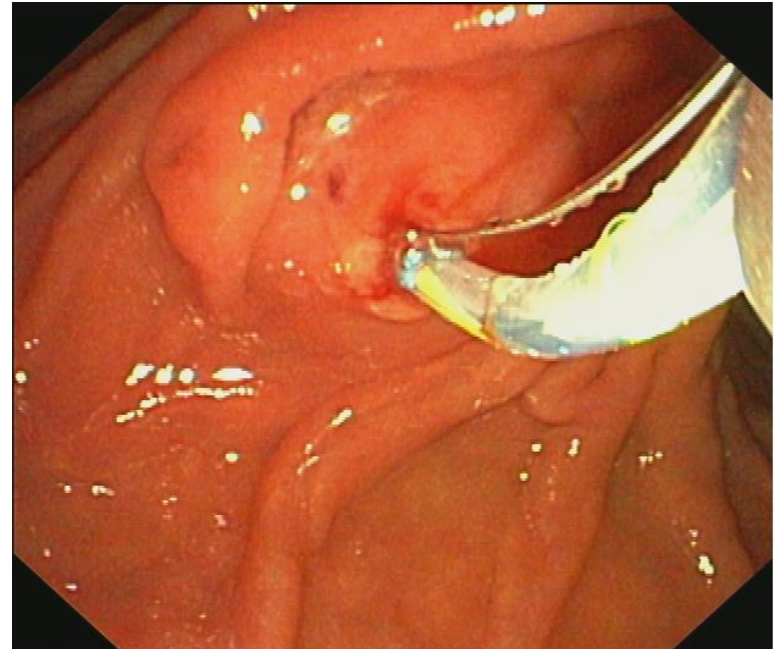
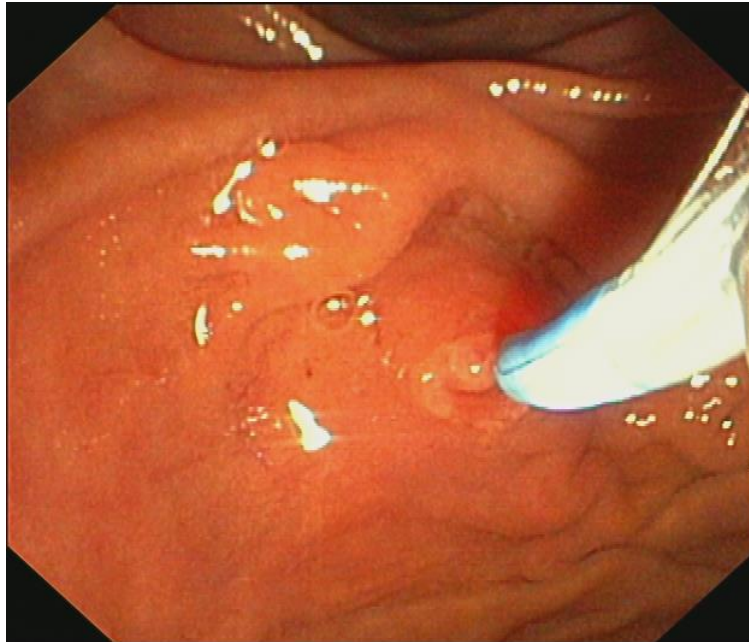
Important features: Atraumatic tip, tip size, steerability

Accessories: Guidewires

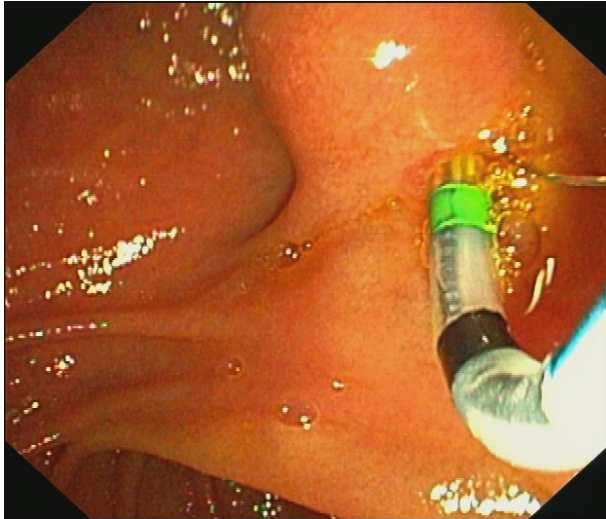


Important features: Flexible tip, tip size and shape, visibility, tactile control

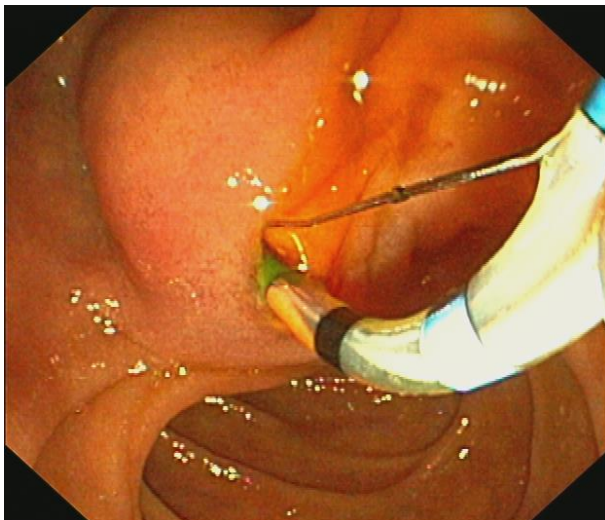
Access to the papilla



Access to the papilla

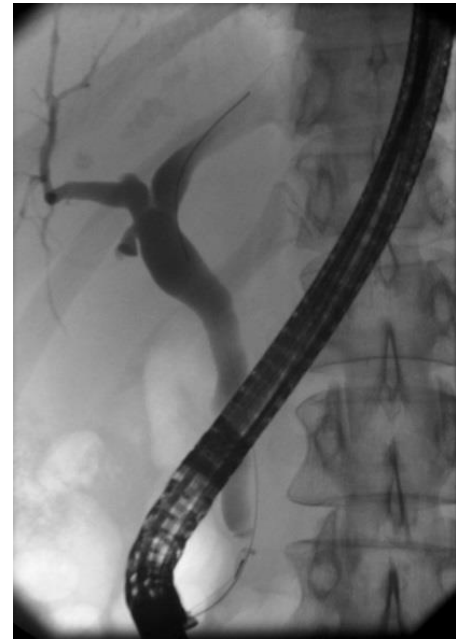
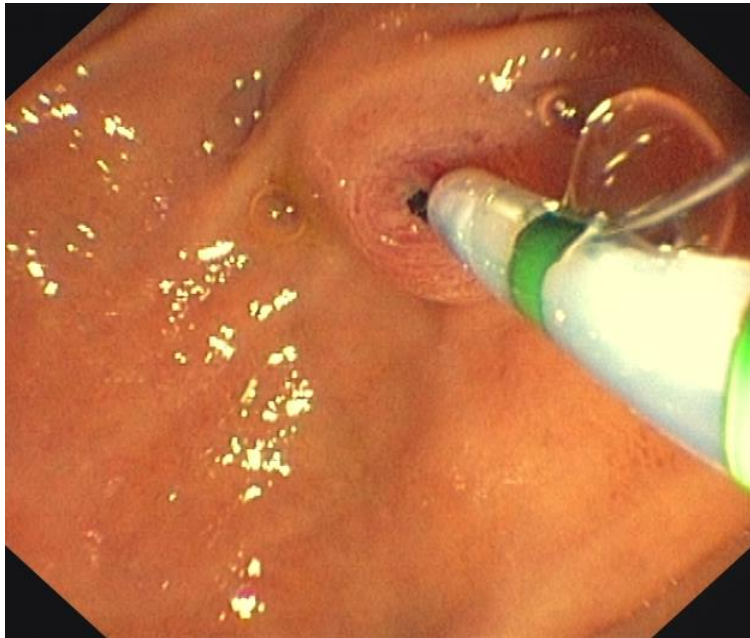


Short route position



Long route position

Wire guided cannulation





Wire-guided – versus standard cannulation

Meta-analysis of 12 RCT`s (3450 patients)

W-G vs Standard

OR

Primary cannulation success

1.07

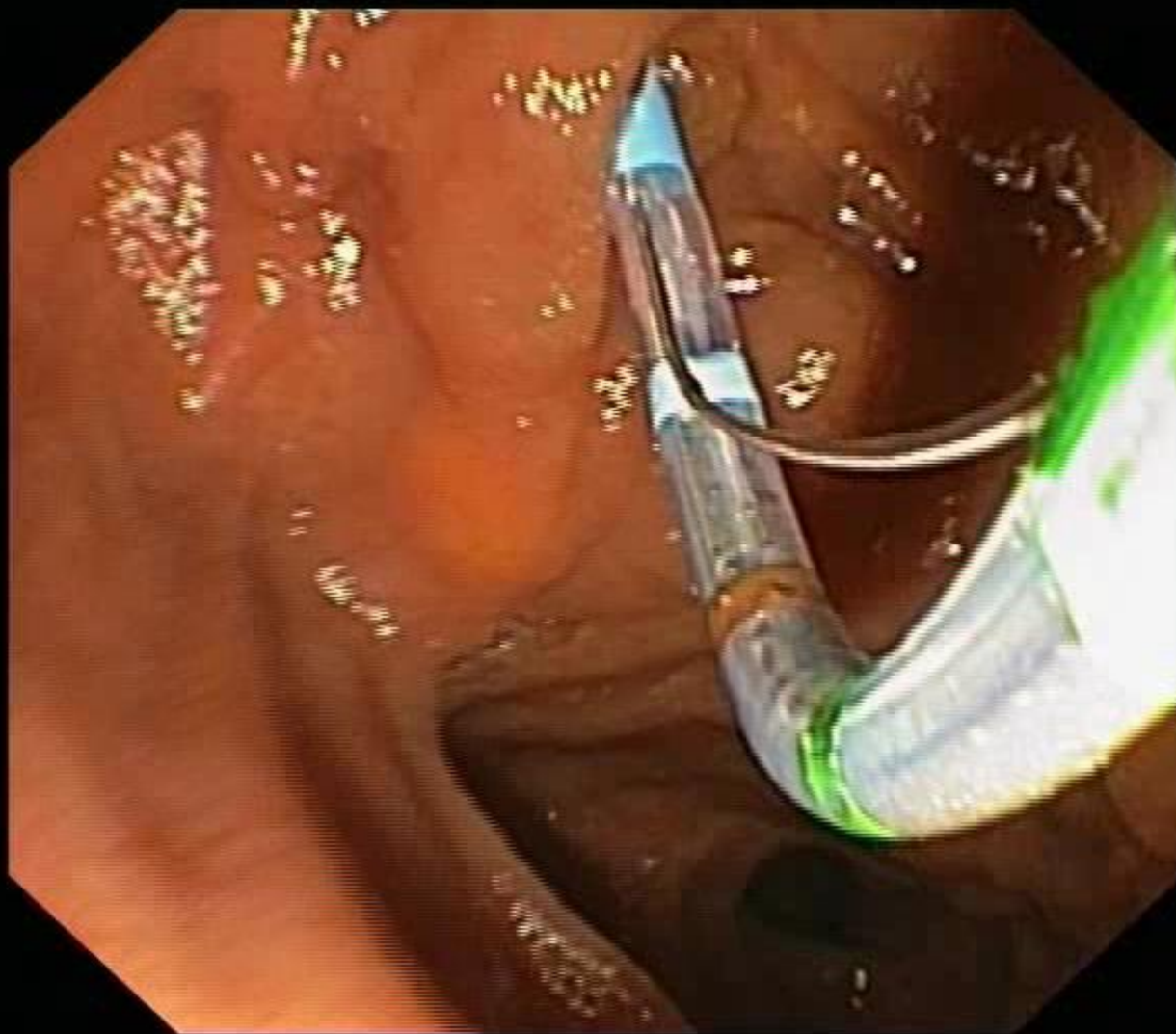
Precut sphincterotomy

0.75

Post-ERCP pancreatitis

0.51

Combined standard and wire-guided technique

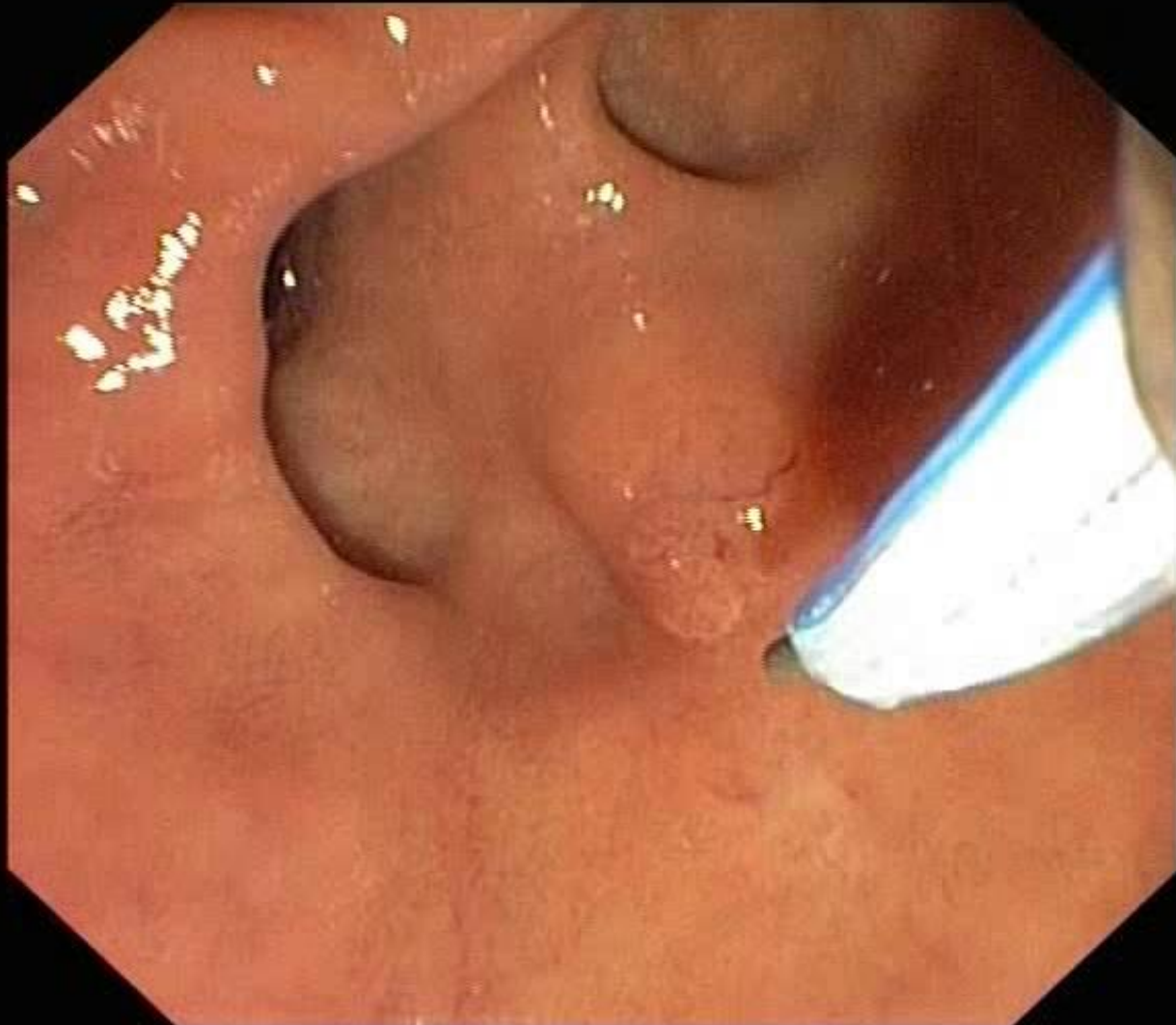


Options for failures of primary cannulation

- Access to the PD
 - Double-wire technique
 - Pancreatic stent
 - Transpancreatic precut EST

- No access to the PD or failures even after PD access
 - Needle knife EST
 - PTC guided rendezvous
 - EUS guided rendezvous

Double wire technique



Double-guide wire technique

Cohort studies

| Author | Year | Patients | Success (%) | PEP (%) |
|------------|------|----------|-------------|---------|
| Gyökeres | 2003 | 24 | NA | 8.3 |
| Draganoy | 2005 | 12 | 83 | 0 |
| Xinopoulos | 2011 | 112 | 44 | 6.1 |
| Grönroos | 2011 | 50 | 66 | 2 |
| Hisa | 2011 | 38 | 76 | 2.6 |
| Ito | 2013 | 25 | 72 | 4 |

Double-guide wire - vs standard technique

Multicenter prospective RCT

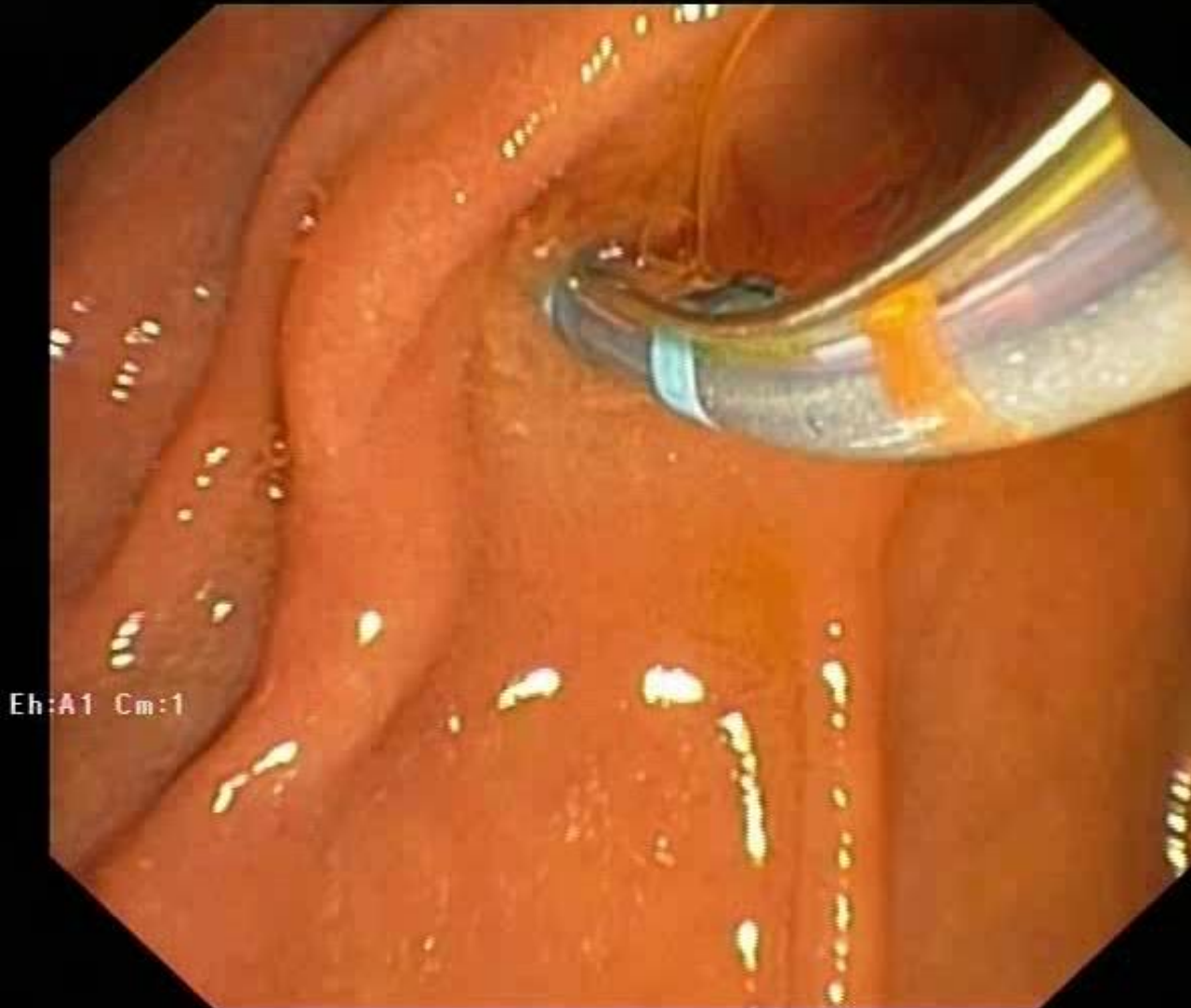
| | DGW | Standard | OR |
|------------------------|------|----------|------|
| Patients | 97 | 91 | |
| Success | 47 % | 56 % | 0.85 |
| No. of attempts (mean) | 9 | 7 | |
| PEP | 17 % | 8 % | 2.1 |

Double-guide wire - vs standard technique

Multicenter prospective RCT

| | DGW | Standard | P |
|--------------------------------|------|----------|------|
| Patients | 137 | 137 | |
| Success | | | |
| within 10 attempts and 10 min. | 75 % | 70 % | n.s |
| total | 98 % | 97 % | n.s. |
| PEP | 20 % | 17 % | n.s. |

Wire-guided cannulation over a pancreatic stent

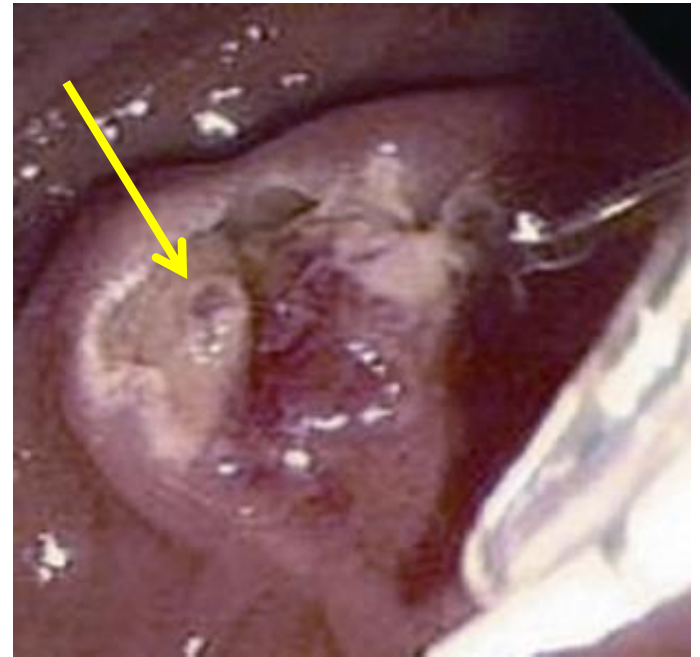


Double-guide wire technique vs wire-guide cannulation over a pancreatic stent

Retrospective cohort study

| | DGW | PD stent | P |
|-----------------------------|------|----------|-------|
| Patients | 87 | 90 | |
| Success | | | |
| Initial | 70 % | 67 % | n.s. |
| + PD stent after failed DGW | 86 % | 67 % | 0.003 |
| PEP | 10 % | 3 % | n.s. |

Transpancreatic precut EST



Double wire techniques vs transpancreatic EST

Retrospective cohort study

| | DWT | TPS | p |
|-------------------------|-------|-------|--------|
| Patients | 137 | 142 | |
| Success | | | |
| 1 st attempt | 62 % | 81 % | < 0.01 |
| final | 87 % | 91 % | 0.09 |
| Mean duration (min.) | 8 | 4 | < 0.01 |
| AE rate | 2.2 % | 7.0 % | 0.04 |

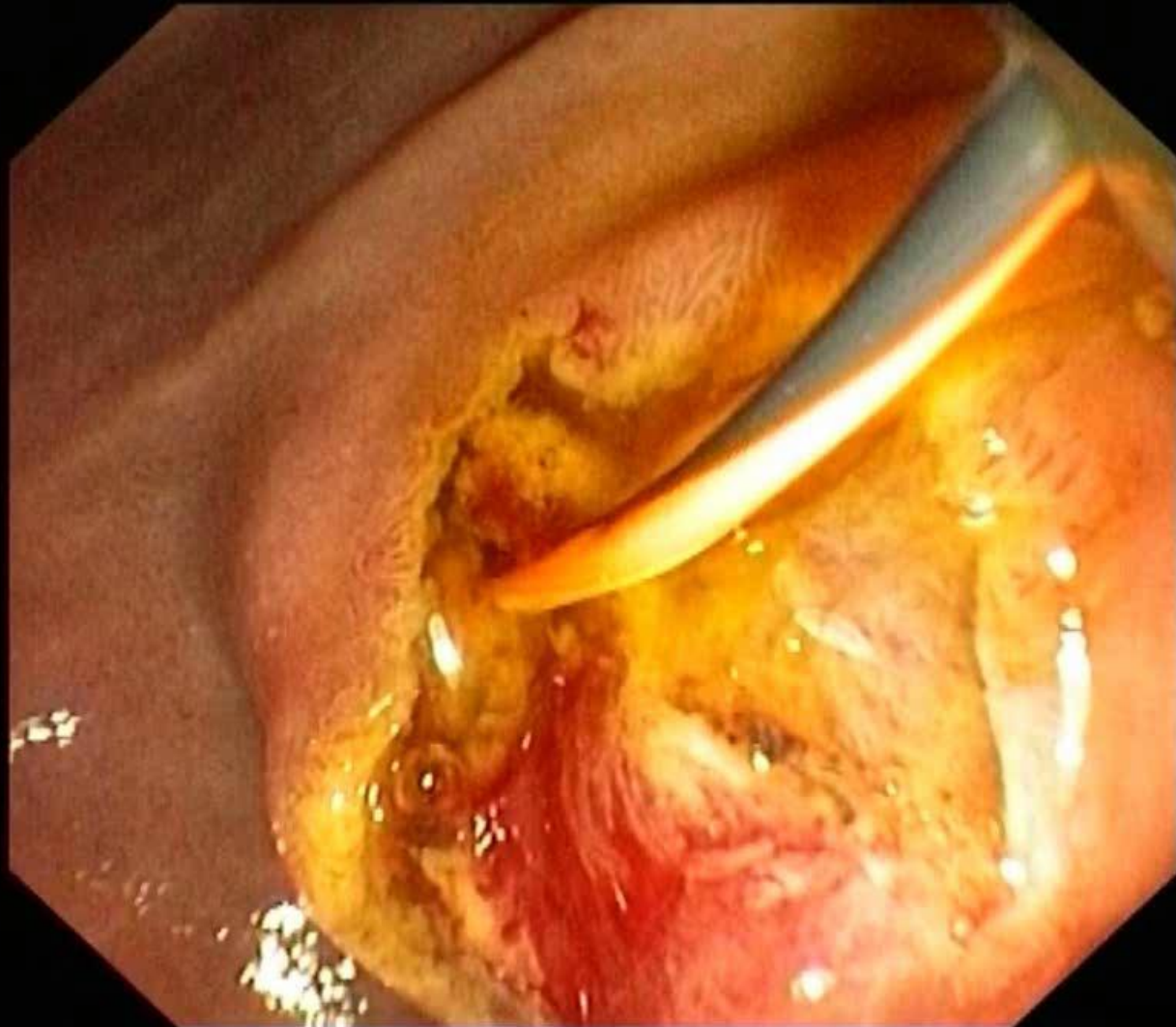


Native papilla cannulation success

Multinational ERCP Quality Network

| | |
|----------------------------|--------|
| No. of ERCPs | 13018 |
| Endoscopists | 85 |
| Cannulation rate | |
| conventional | 89.9 % |
| overall (including precut) | 95.6 % |
| Precut | 6.7 % |

Access to the ventral pancreatic duct after biliary EST



Access to the dorsal pancreatic duct



Comments:



Conclusions

- Prerequisites for successful and safe interventions:
 - Detailed knowledge of the biliopancreatic anatomy
 - Deep sedation
 - Wide range of accessories
 - Difficult cases: advanced expertise, MRCP

- Low level of evidence for the use and preference of advanced techniques

- Balance of pros and cons in consideration of alternative procedures or conservative measures



18TH DÜSSELDORF INTERNATIONAL
ENDOSCOPY SYMPOSIUM
FEBRUARY 11 — 13, 2016

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