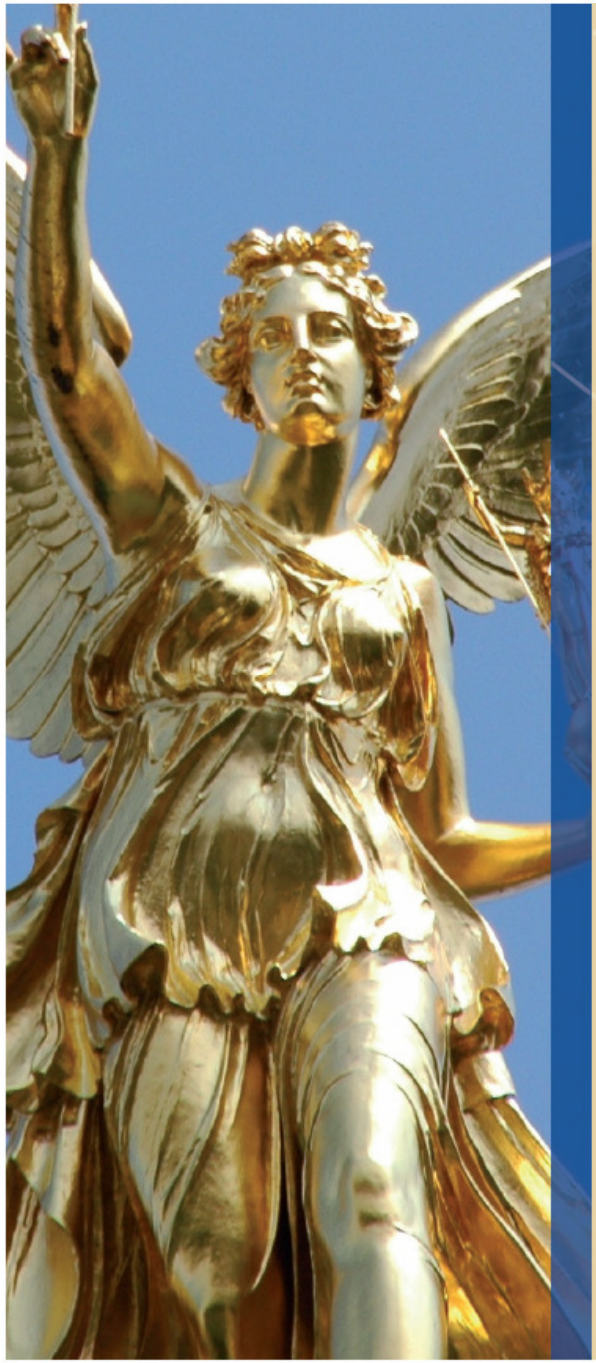


QUALITY IN ENDOSCOPY: ERCP

Preoperative drainage is always indicated in malignant CBD strictures

PRO

Horst Neuhaus
Evangelisches Krankenhaus
Düsseldorf, Germany

ESGE

EASL EUROPEAN ASSOCIATION FOR THE STUDY OF THE LIVER

Malignant biliary obstruction: preoperative drainage

Background

- Jaundice is associated with high perioperative morbidity and mortality
- Preoperative drainage may reverse the pathophysiologic disturbance (e.g. hepatic synthetic and clearance function, mucosal intestinal barrier function)

Malignant biliary obstruction: preoperative drainage

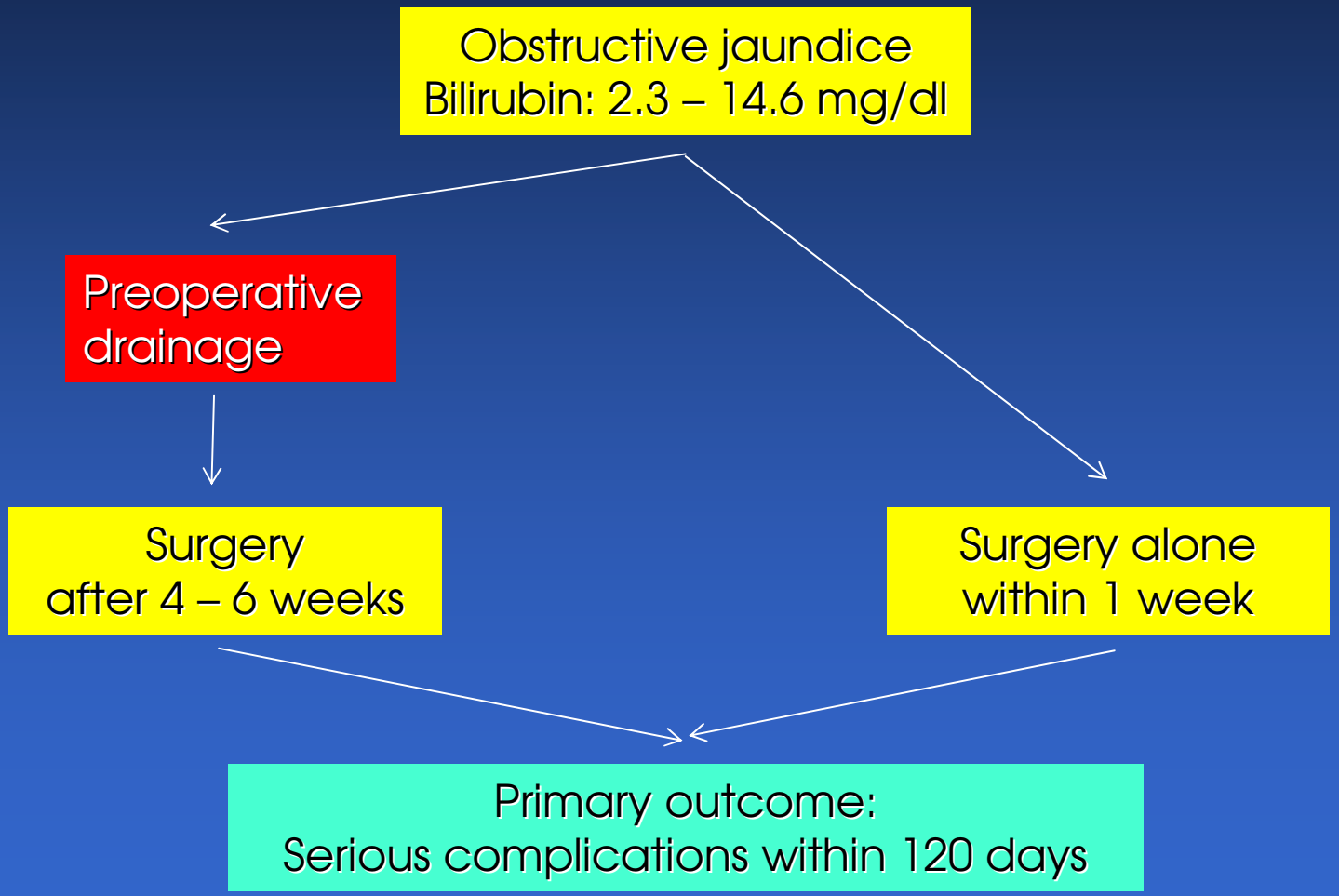
Cochrane Database Systematic Review

- 4 RCT`s on PTCD, 1 RCT on endoscopic drainage
- 320 patients
- Drainage vs no drainage:
  - No difference in mortality
  - Higher morbidity (endoscopy study)
  - Longer hospitalisation
  - Increased costs
- However: poor quality of the included trials

Wang Q, Cochrane Database Syst Rev 2008; 16(3): CD005444

Malignant biliary obstruction: preoperative drainage

RCT in patients with pancreatic head cancer



Van der Gaag NA, NEJM 2010; 362:129-37

Malignant biliary obstruction: preoperative drainage

RCT in patients with pancreatic head cancer

	Drainage	No drainage
Patients	102	94
Successful drainage	94 %	
complication rate	46 %	
Surgery related complications	47 %	37 %
Serious complications	74 %	39 %*
Procedure related mortality	9 %	4 %

* P < 0.001

Van der Gaag NA, NEJM 2010; 362:129-37

Malignant biliary obstruction: preoperative drainage

RCT in patients with pancreatic head cancer

Van der Gaag NA, NEJM 2010; 362:129-37

Limitations

- Exclusion of patients with a bilirubin level of ≥ 14.6 mg/dl
- Compared to previous trials on endoscopic biliary stenting:
  - High initial failure rate (25 %)
  - Frequent need (30 %) for early stent exchange
  - High incidence of secondary cholangitis (26 %)
  - High rate of other ERCP related complications

    panncreatitis 7%, perforation 2%, bleeding 2%
  - High rate of benign or unresectable disease (39 %)

Malignant biliary obstruction: preoperative drainage

Surgical concepts for patients with pancreatic head cancer
Survey among 102 German surgical centers

Criteria for non-resectability	
Arterial infiltration	
Common hepatic artery	70 %
SMA	85 %
Celiac trunk	86 %
Portal vein infiltration	18 %
Extrapancreatic tumor manifestation	70 %
Preoperative endoscopic drainage in patients with a bilirubin level of ≥ 15 mg/dl	
Yes	54 %
No	43 %

Langenbecks Arch Surg 2011; 396:223-9

Malignant biliary obstruction: palliative drainage

Distal biliary obstruction
Metaanalysis

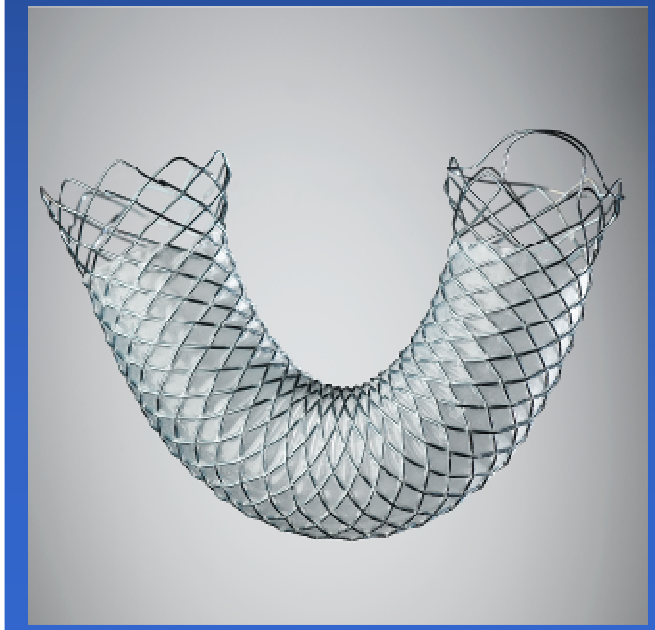
SEMS vs plastic prosthesis (7 RCT`s)

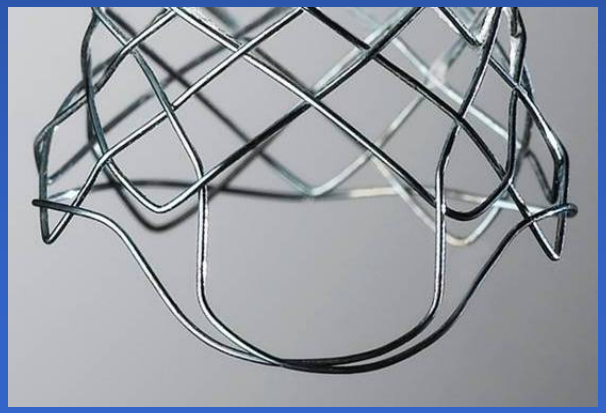
- Reduced risk of recurrent biliary obstruction at 4 months (OR 0.4) or prior to death/end of study (OR 0.5)
- No difference: success, complications, mortality

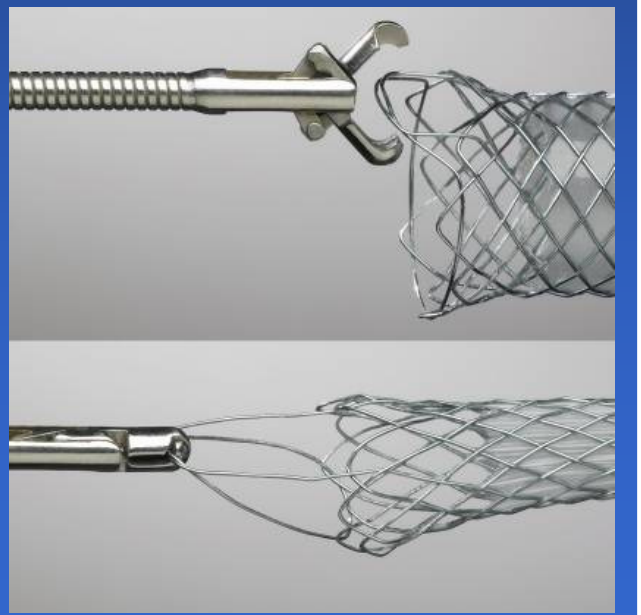
Moss AC, Cancer Treat Rev 2007; 33: 213-21

Malignant biliary obstruction: preoperative drainage

Partially covered SEMS as a bridge to surgery







Malignant biliary obstruction: preoperative drainage

Partially covered SEMS as a bridge to surgery regardless of resectability

Patients	27
Pancreatic cancer	23
Others	4
Median time between stenting and surgery	32 days
Complications	
Migration	2
Tissue overgrowth	1
Whipple procedure	9 (33 %)
Palliative approach	18 (67 %)
Median f/u post-surgery	210 days

Pop GH, Surg Endosc 2011; 25:613-8

Malignant biliary obstruction: preoperative drainage

SEMS as a bridge to pancreaticoduodenectomy (PD) in patients with resectable pancreatic cancer

Patients	79
Previous plastic stents	70 %
Neoadjuvant RCTx	95 %
Median time between stenting and surgery	120 days
SEMS related difficulties during PD	0
30-day morbidity rate	33 %
30-day mortality rate	0 %

Singal AK; Dig Dis Sci 2011; Jul 13 (Epub ahead of print)

Malignant biliary obstruction

Indications for preoperative biliary drainage

Obligatory

- Delay in surgery
- Neoadjuvant RCTx / CTx
- Cholangitis
- Bilirubin level of ~ ≥ 15 mg/dl

Investigational: SEMS in all jaundiced patients

- Options to postpone surgery
- Low risk of secondary cholangitis
- No adverse effect in case of PD
- Adequate palliative biliary drainage in case of irresectabilty