

The Management of Malignant Bile Duct Obstruction

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Pancreatobiliary Malignancy

Primary malignancy

- Pancreatic Adenocarcinoma
- Cholangiocarcinoma
- Ampullary carcinoma
- Gallbladder Carcinoma

Pancreatobiliary Malignancy

Metastatic Disease

- Breast
- Lung
- Lymphoma
- Melanoma

Malignant Bile Duct Obstruction

- 75-80% carcinoma head of pancreas.
- 15-20% considered for curative surgery.
- The majority managed by :-
 - Stenting
 - Chemotherapy

Malignant Bile Duct Obstruction

- Plastic Stents
- Self Expanding Metal Stents

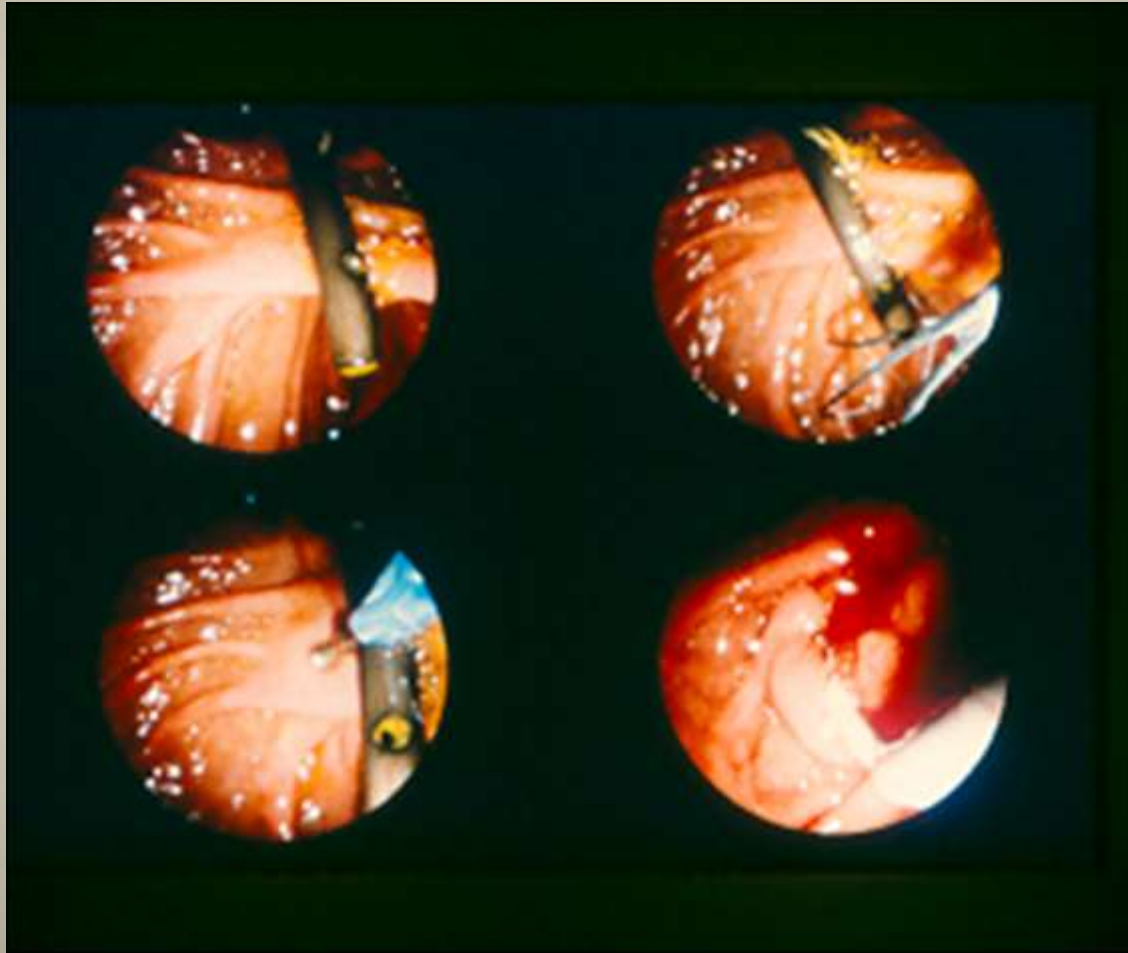
Plastic Stents



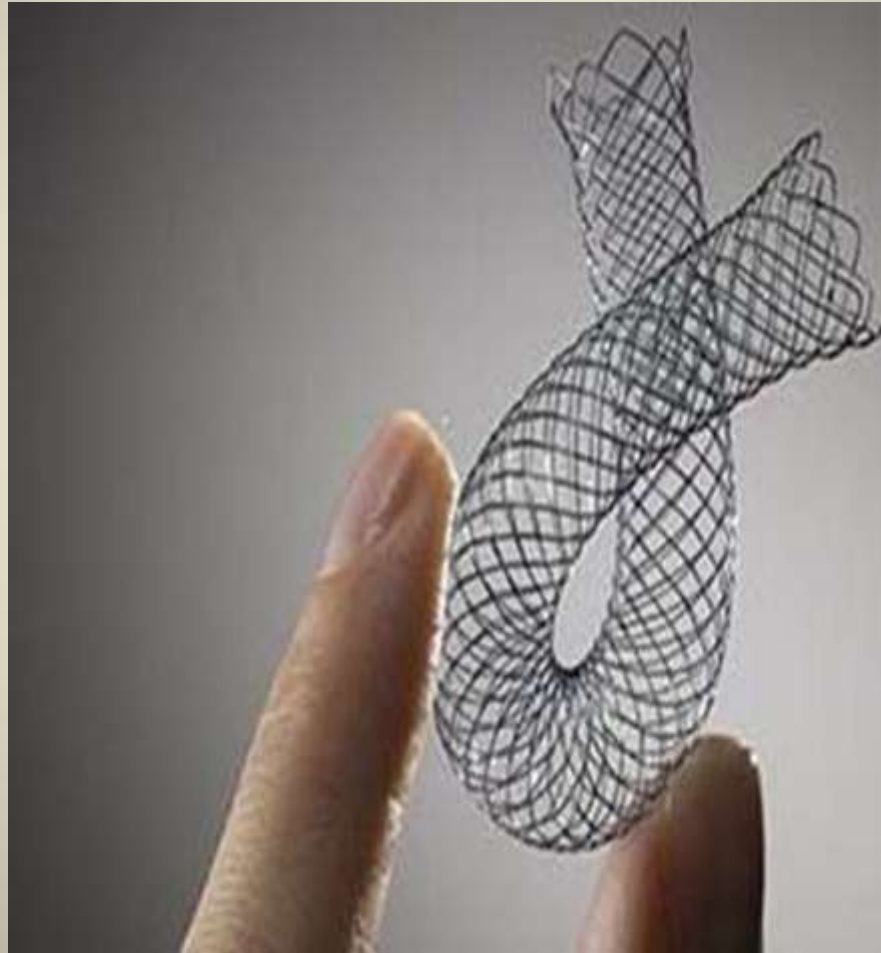
Plastic Stent for Malignant Bile Duct Obstruction



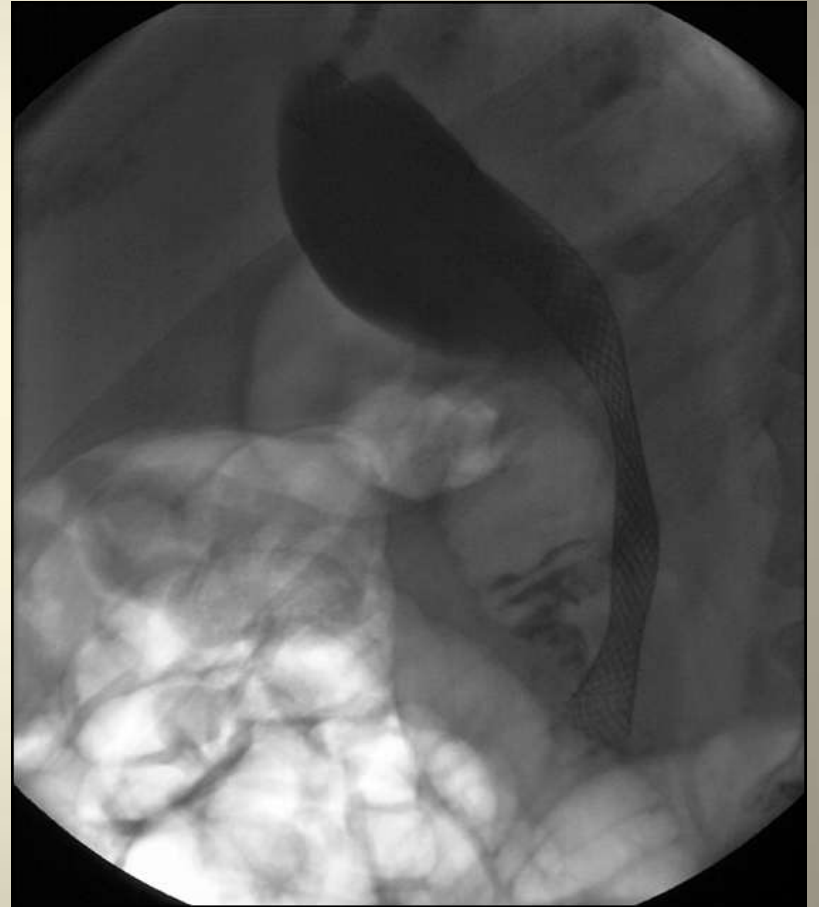
Plastic Stent Occlusion



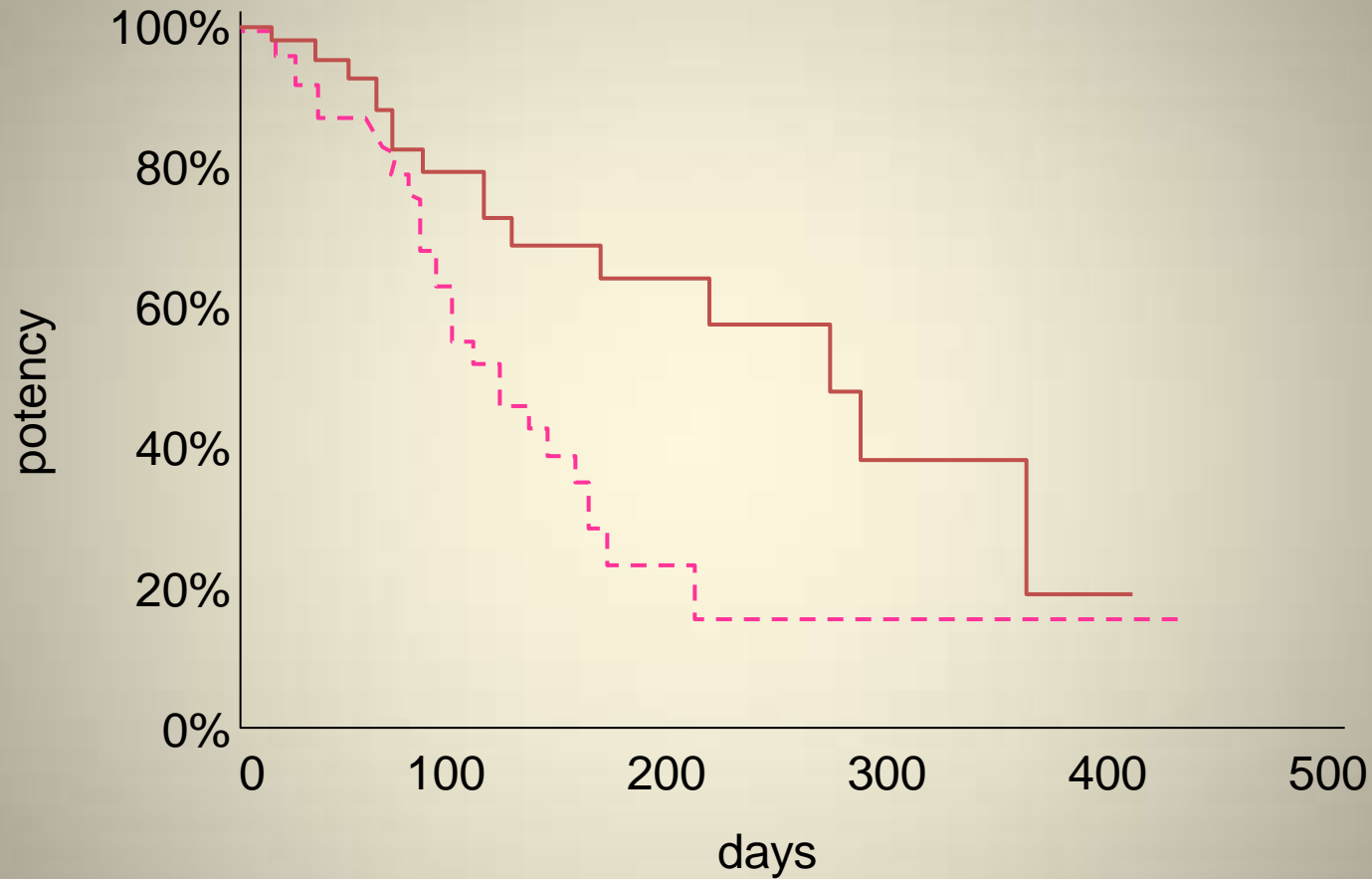
Self Expanding Metal Sents



Self Expanding Metal Stent



PATENCY OF PLASTIC VS METAL STENTS



Cumulative patency of the first stent

— metal stent - - - polyethylene stent p=0.006

Endoscopic Management of Pancreatic Cancer

To drain or not to drain pre-planned
resection:-

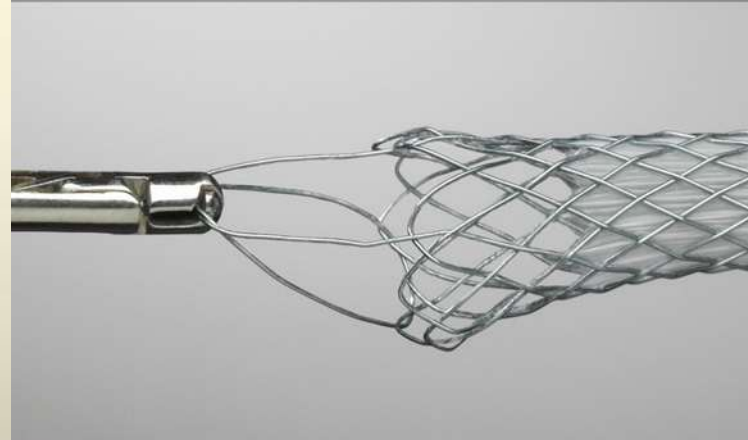
Meta analysis : 5 trials 302 patients

Pre-op drainage

- No survival benefit
- Increased complications
- Prolonged hospital stay

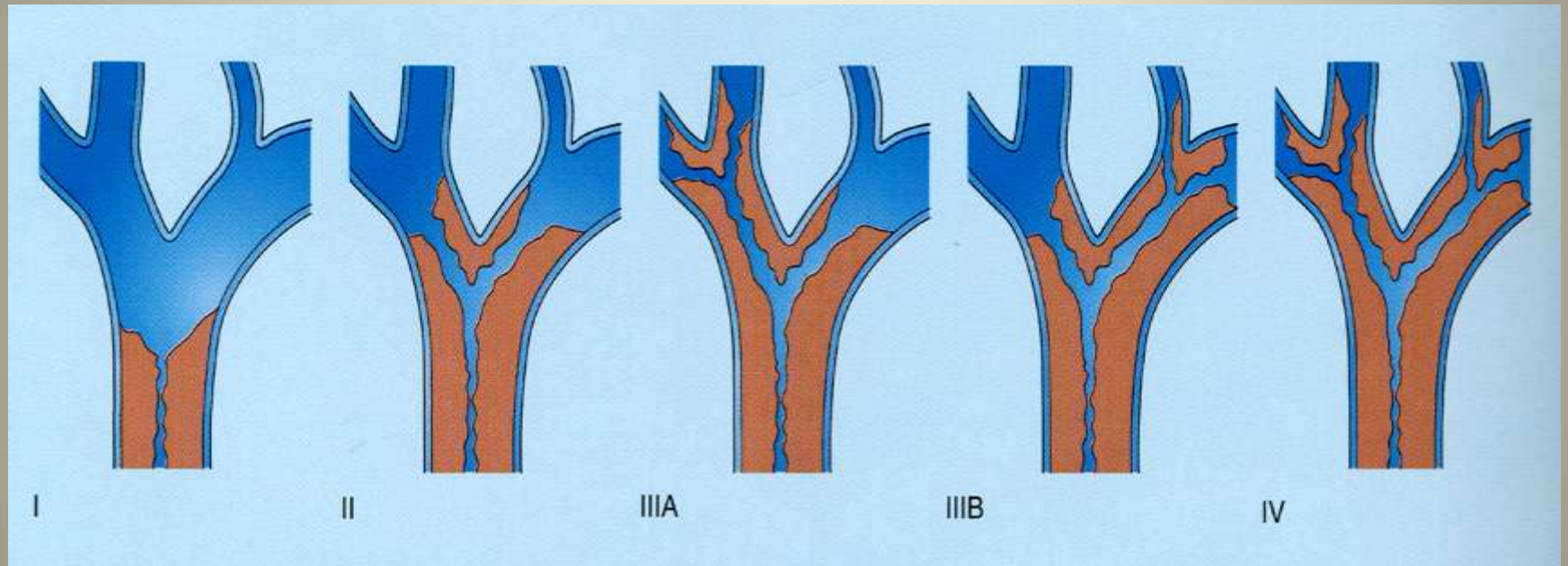
Sewnath ME, Ann Surg 2003

Fully Covered Metal Stent



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Retrieval Loop is for removal during initial stent placement to be used in the event of incorrect placement.

Hilar Strictures



Confirmation of Malignancy

- Crosssectional Imaging
- Tumour Markers
- Immune Markers
- Histology
- Cytology
- Cholangioscopy

Benign Hilar Strictures

Surgery for Suspected Malignancy

22/275 (8%) Confirmed as Benign Disease

- Lymphoplasmacytic sclerosing disease
- Primary sclerosing cholangitis
- Granulomatous disease
- Non specific fibrosis
- Stone disease

SpyGlass[®] Direct Visualization System

SpyGlass Capital Components



**SpyScope[®] 10Fr (3.3 mm) Access
& Delivery Catheter**

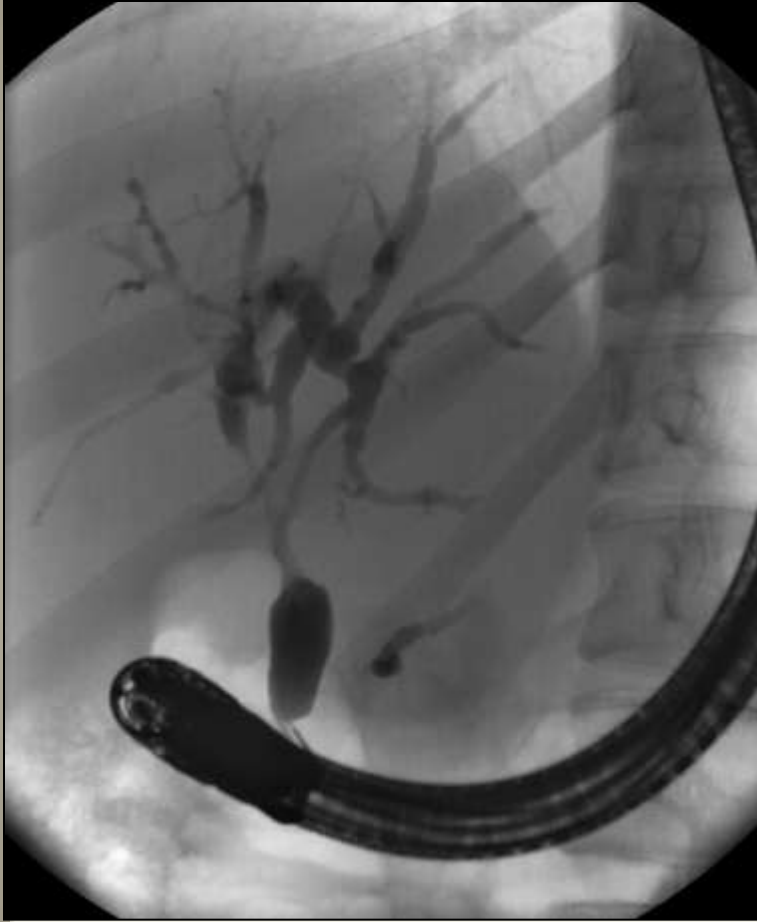


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Optic Probe**

**SpyBite[®]
Biopsy Forceps**



Bilateral Hilar Plastic Stents



Endoscopic Management of Malignant Hilar Bile Duct Strictures

- Unilateral vs bilateral stenting

Unilateral vs Bilateral Stents

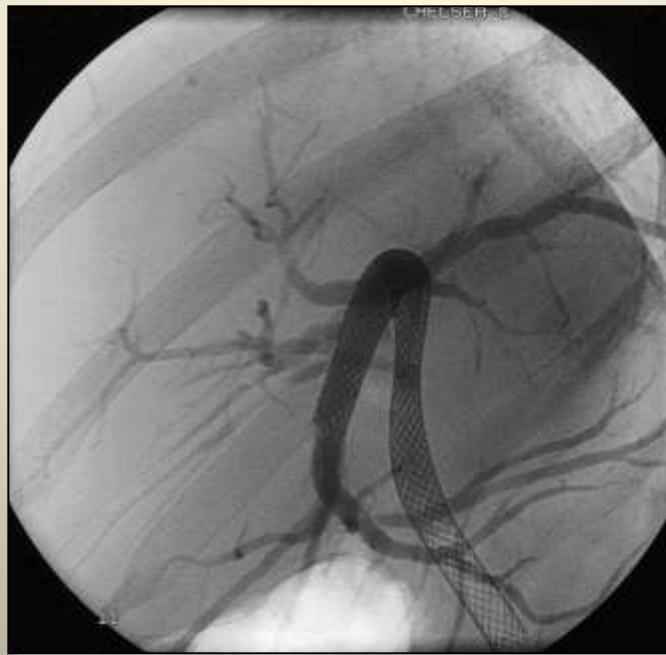
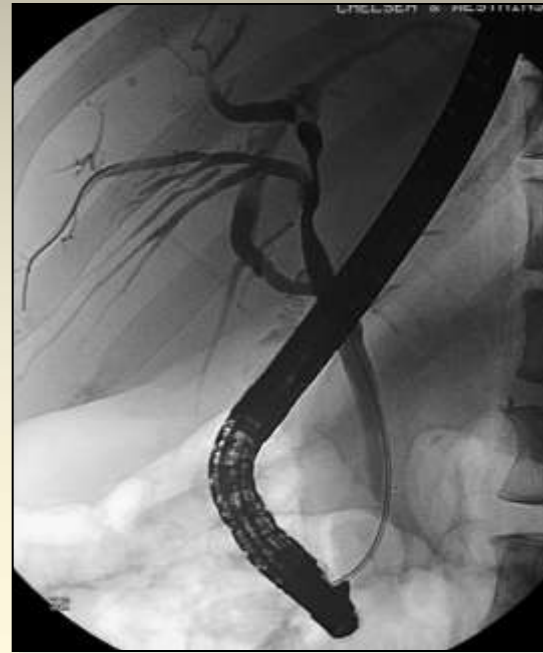
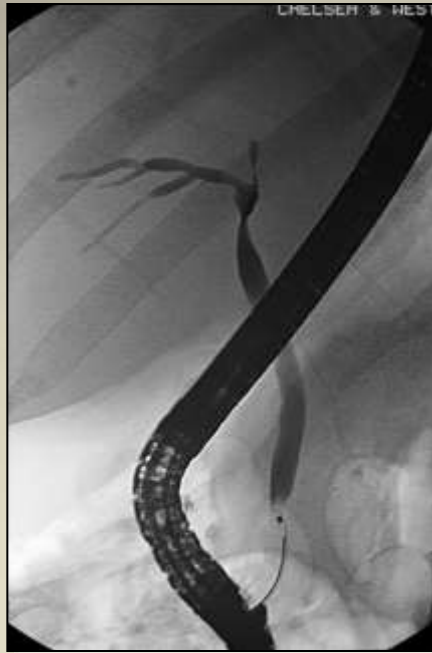
Unilateral	Bilateral
<ul style="list-style-type: none"><li data-bbox="112 611 730 772">■ Failure to relieve jaundice<li data-bbox="112 805 710 966">■ Cholangitis of undrained ducts	<ul style="list-style-type: none"><li data-bbox="981 611 1673 676">■ Technical demands<li data-bbox="981 715 1503 791">■ Complications<li data-bbox="981 823 1321 899">■ Expense

Selective MRCP and CT targeted drainage

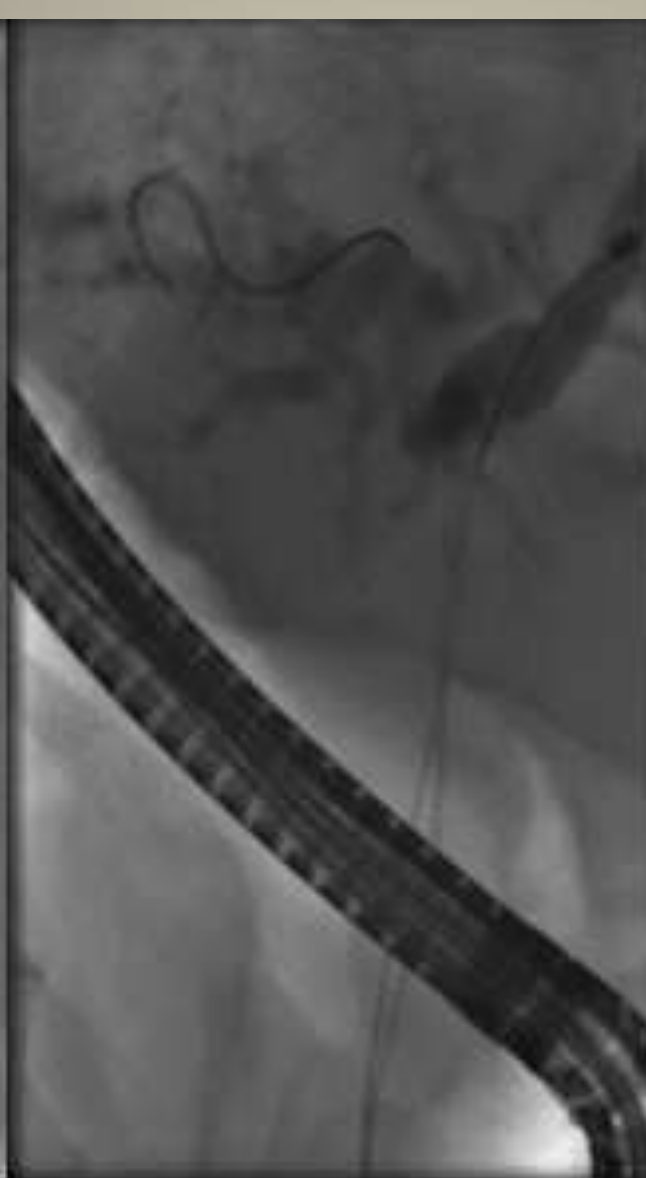
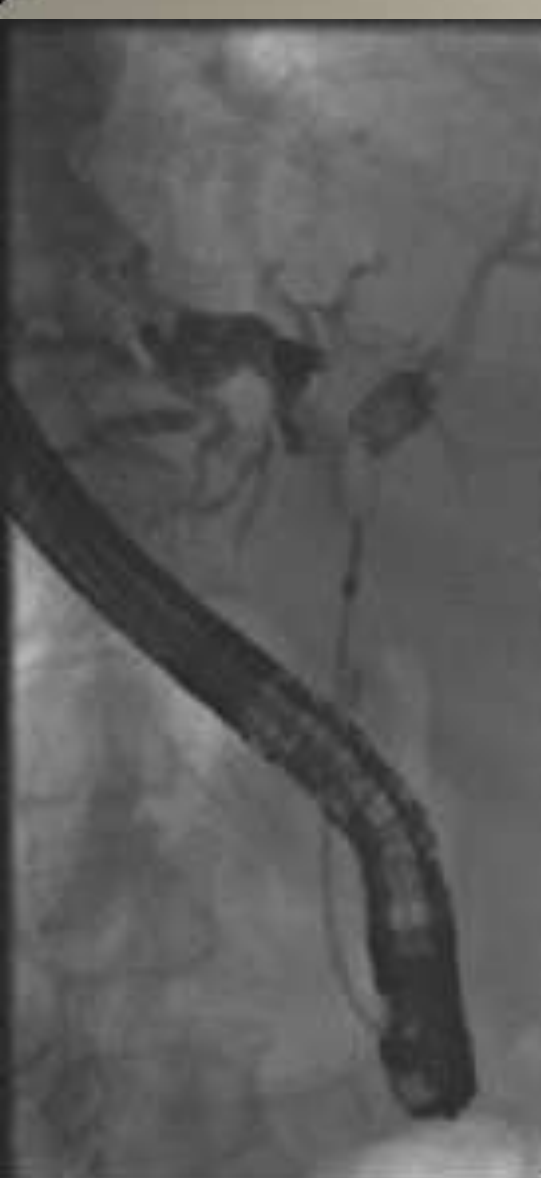
- Aim to drain minimum 30% of the biliary tree
- Optimally to place one stent to achieve drainage
- Two or more stents placed:
 - if 30% liver drainage not achievable
 - to drain all opacified segments

Selective MRCP and CT targeted drainage

- Unilateral placement 85%,bilateral in 15%
- Low cholangitis rates
- Clinically successful bile drainage in 75%



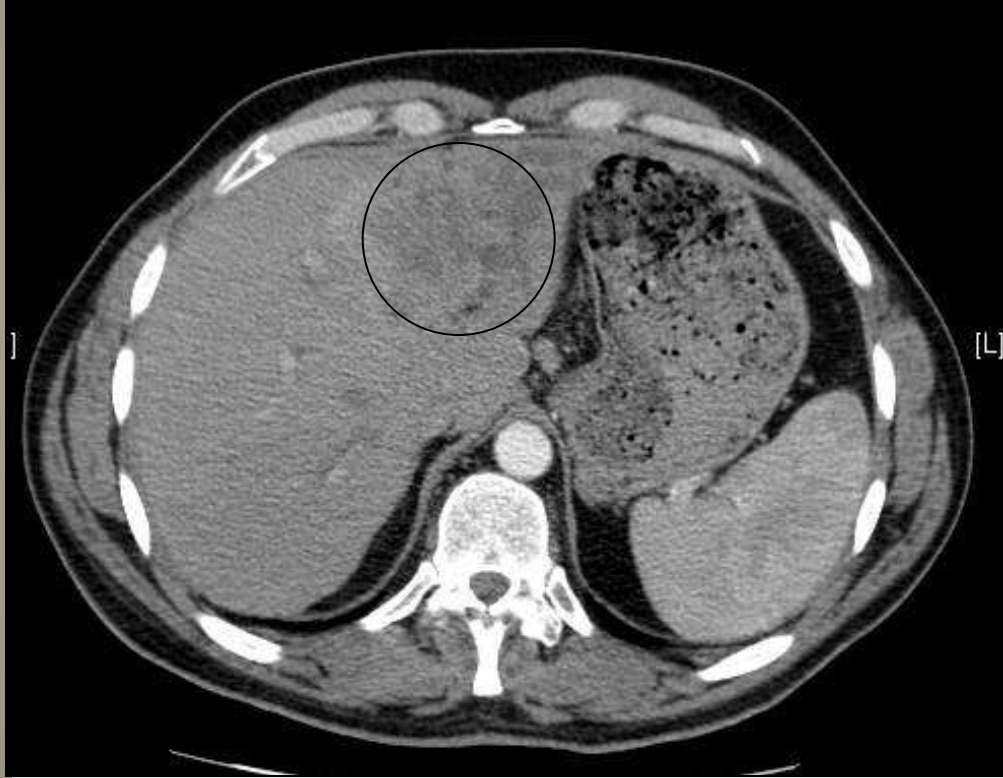




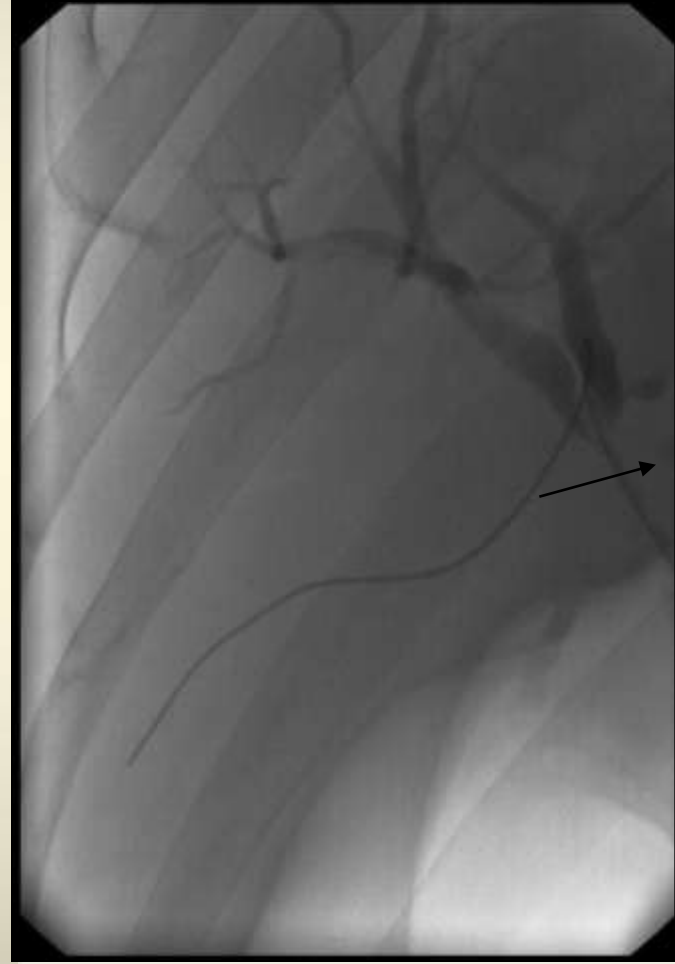
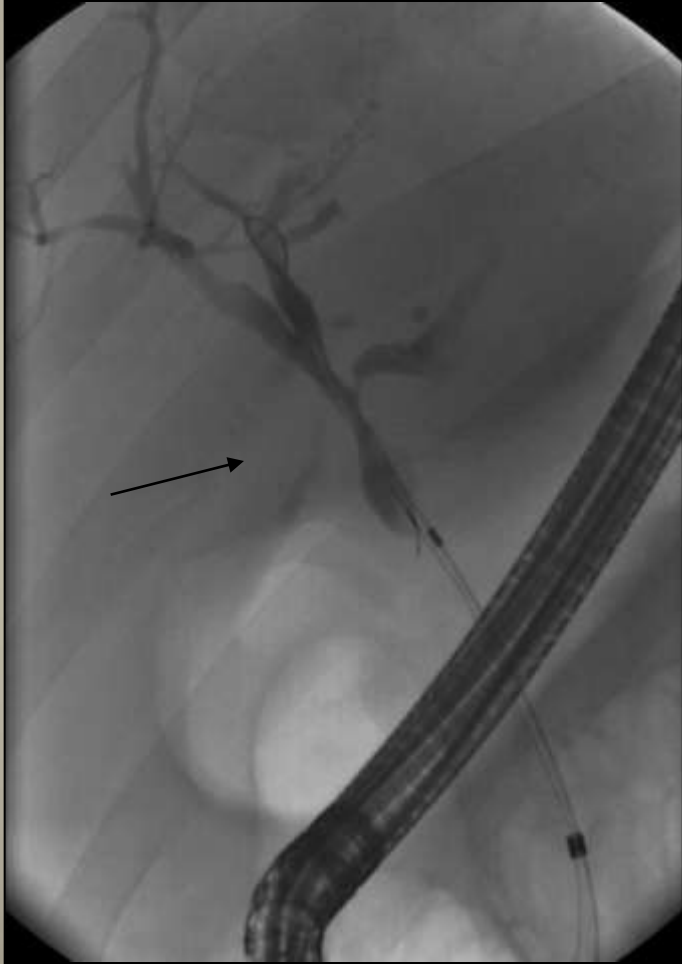
RIGHT
PRONE



Palliative Management of Hilar Cholangiocarcinoma 1

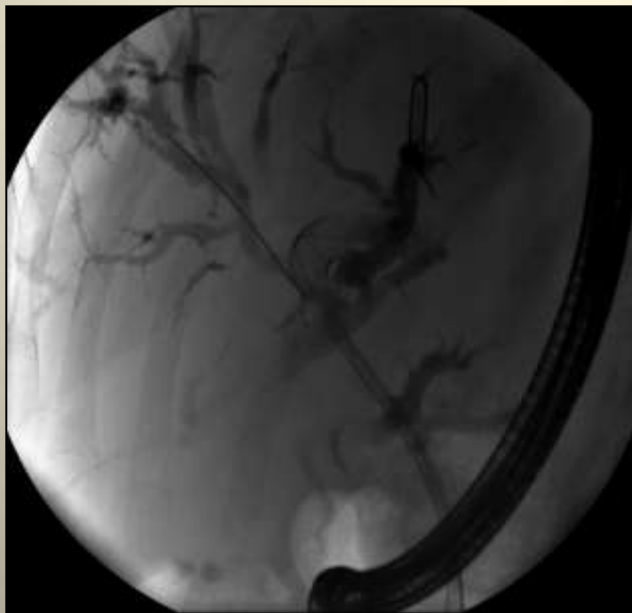
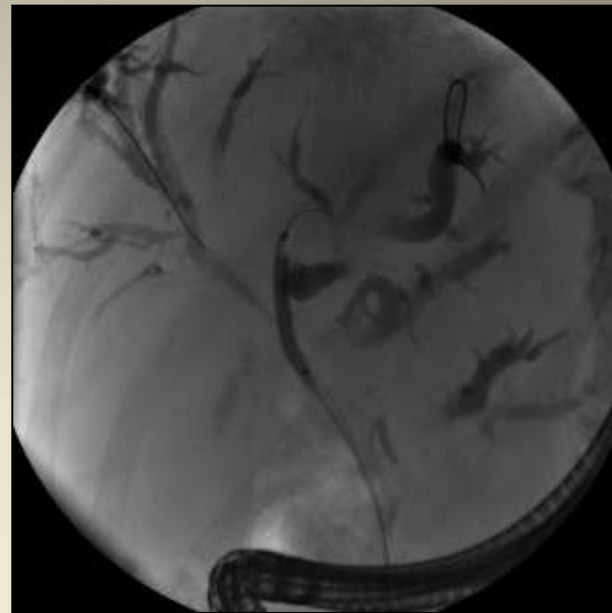
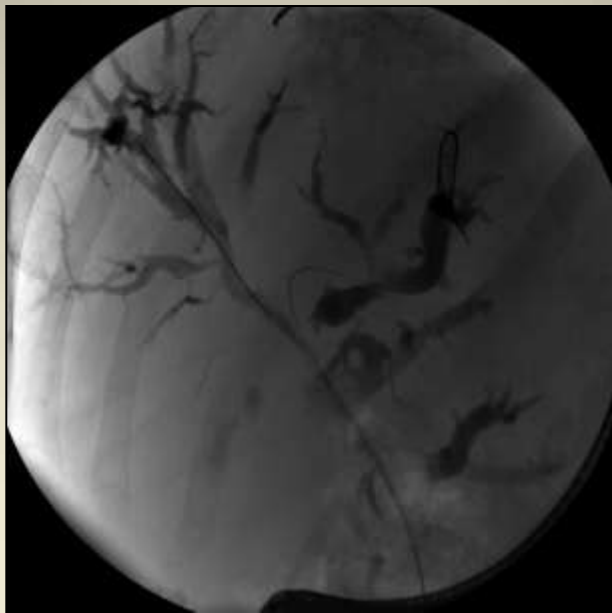
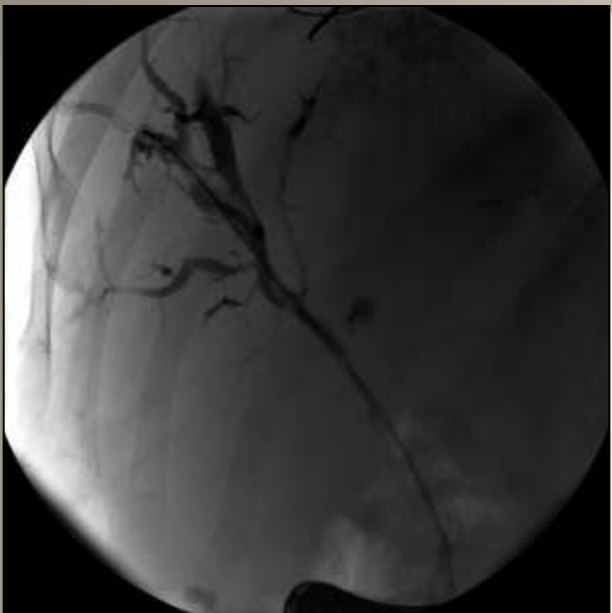


Palliation of Hilar Cholangiocarcinoma 2



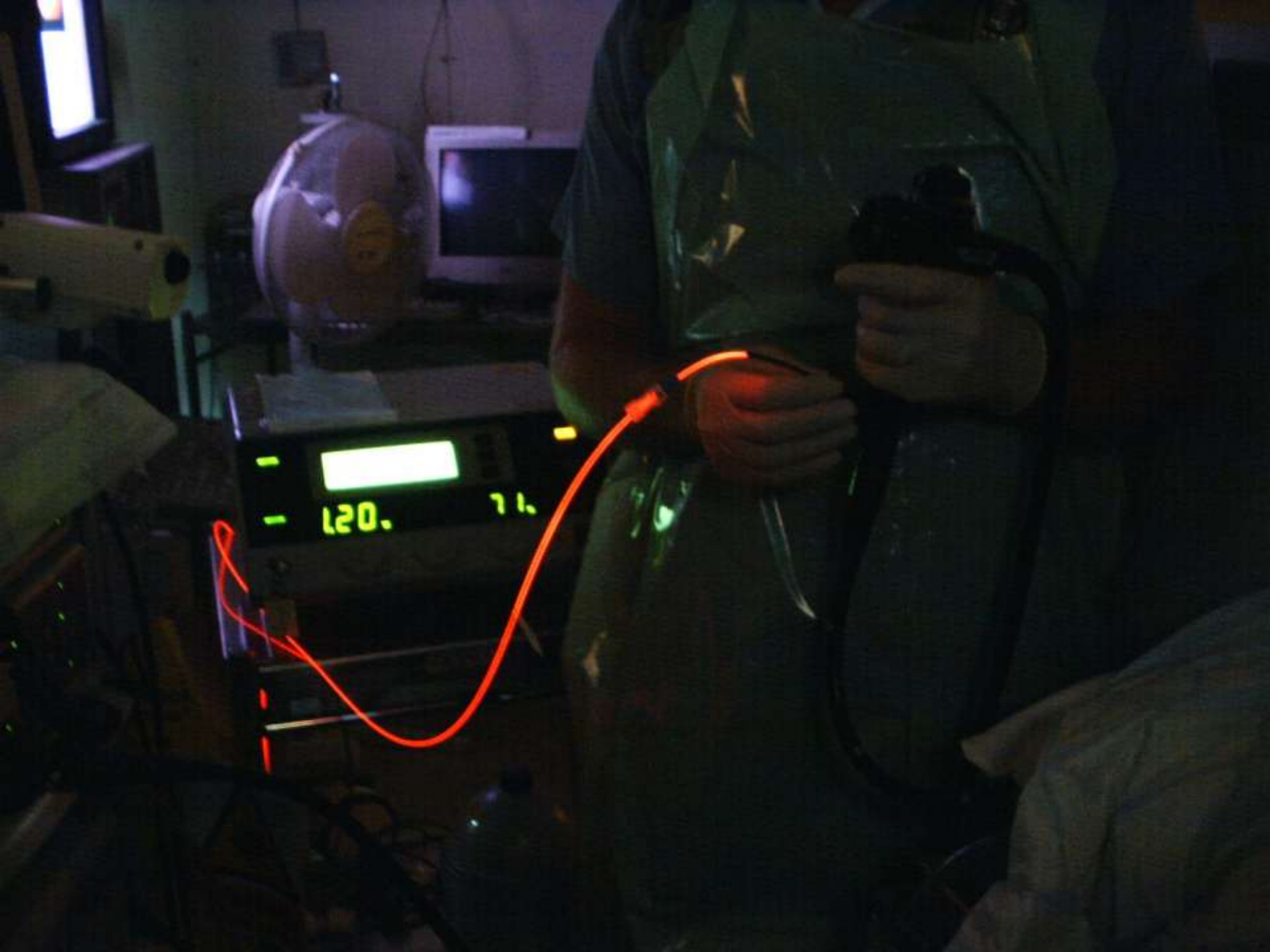
Palliation of Hilar Cholangiocarcinoma 3





Developments in Endoscopic Palliation

- Photodynamic Therapy
- Radiofrequency Ablation via Biliary Catheter
- Removable/Self Absorbing Stents
- Drug Eluting Stents

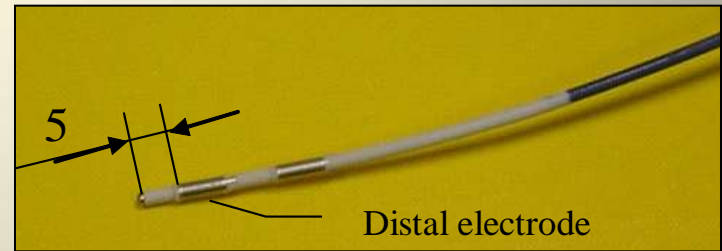


EndoHPB

- Single use
- 1.8m length
- 8Fr (2.6mm)
- 0.035inch guidewire
- 3.2mm working channel
- Bipolar
- Two stainless steel ring electrodes 8mm apart
- Heating zone 25mm +/- 3mm

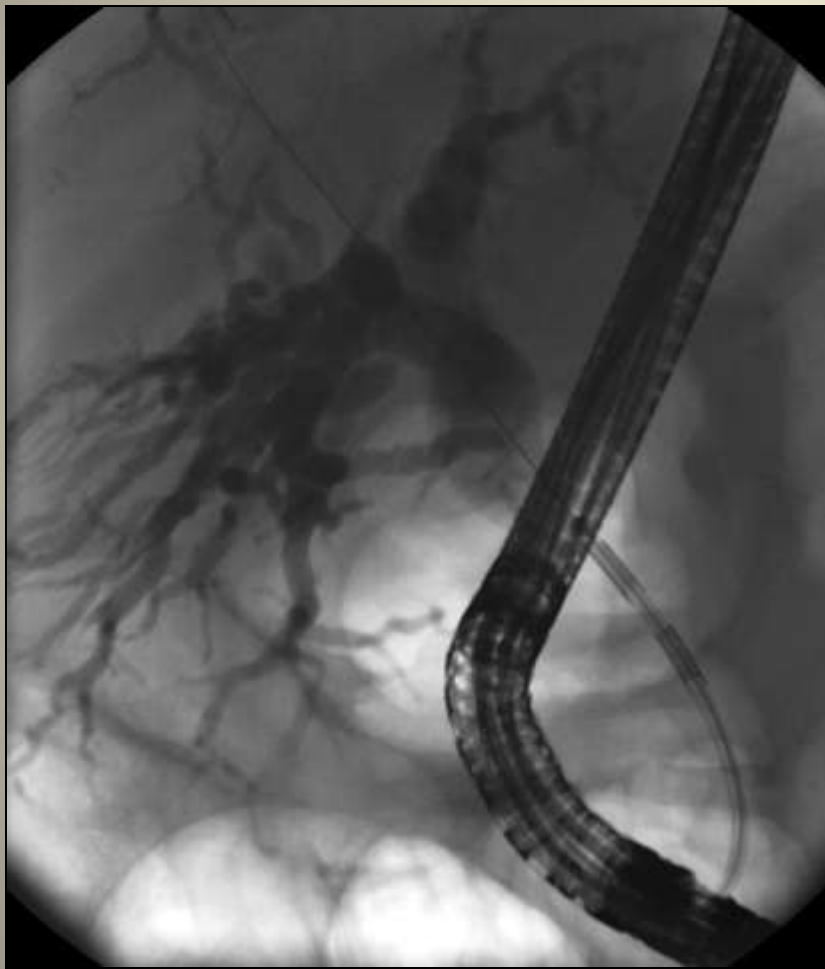


EndoHPB presentation on dispenser coil



Close up of EndoHPB showing the two spiral cut electrodes, 8mm spacing, with the distal electrode 5mm from tip

Endo HPB Radiofrequency Catheter Phase II Study

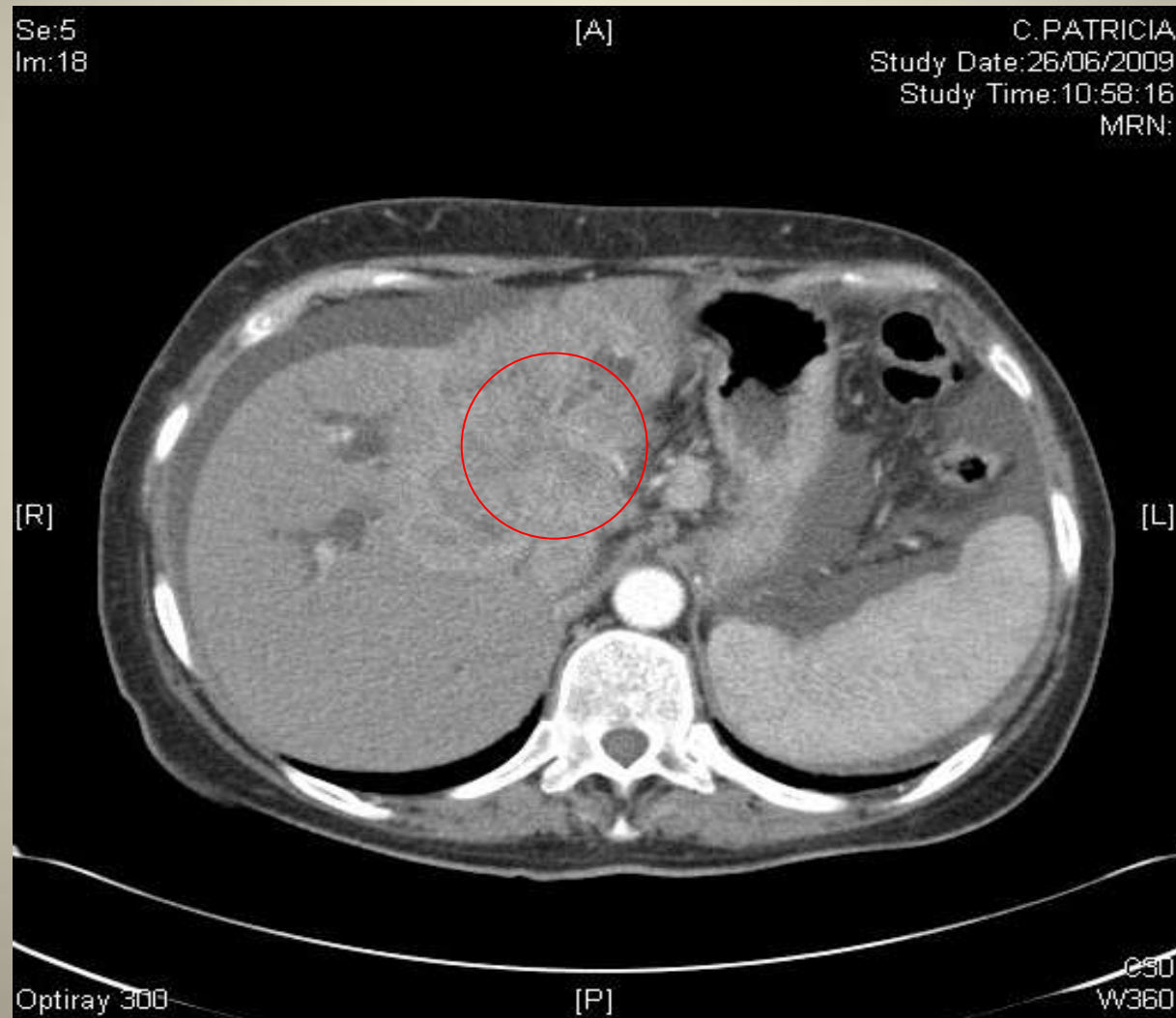


RFA for Bile Duct Obstruction secondary to Pancreatic Cancer



London Live Video 1.m4v

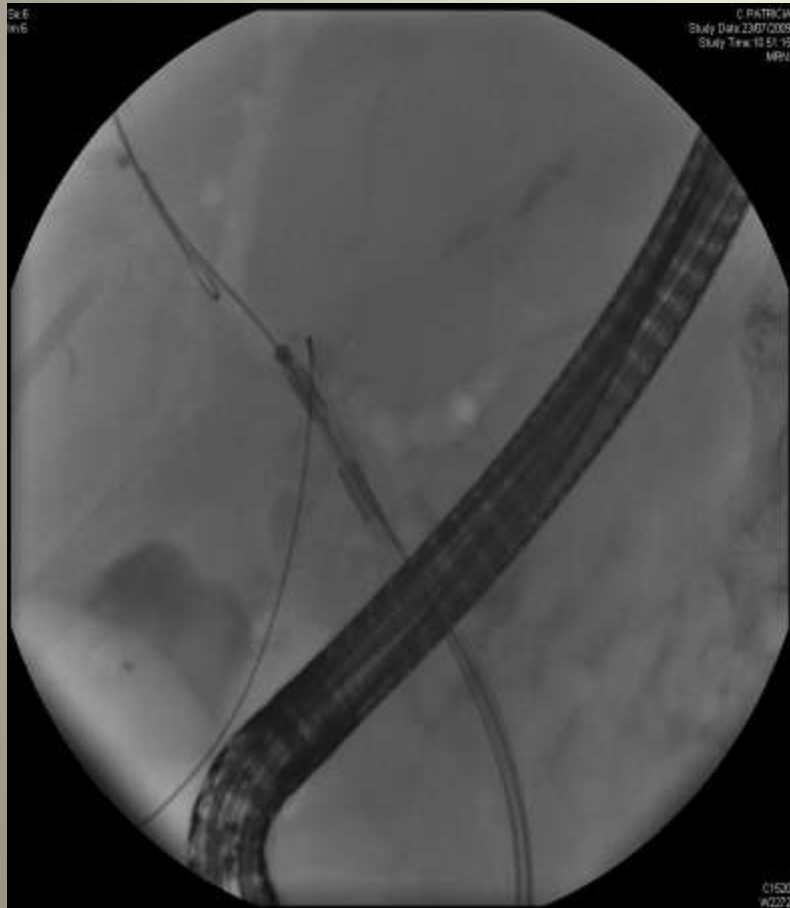
RFA for Cholangiocarcinoma



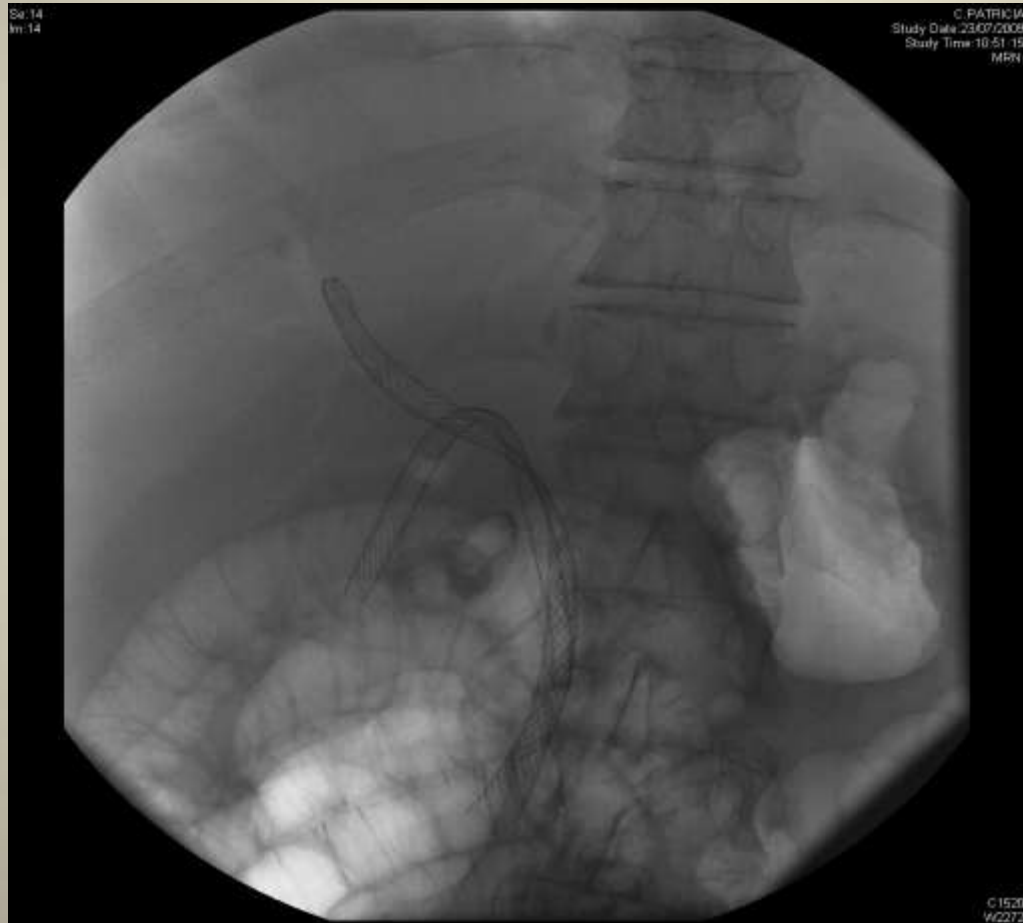
RFA for Cholangiocarcinoma

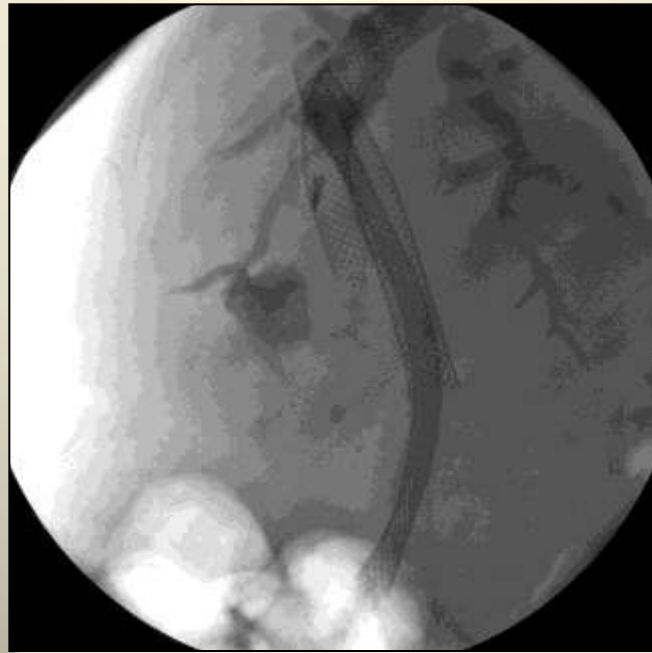


RFA for Cholangiocarcinoma



RFA for Cholangiocarcinoma

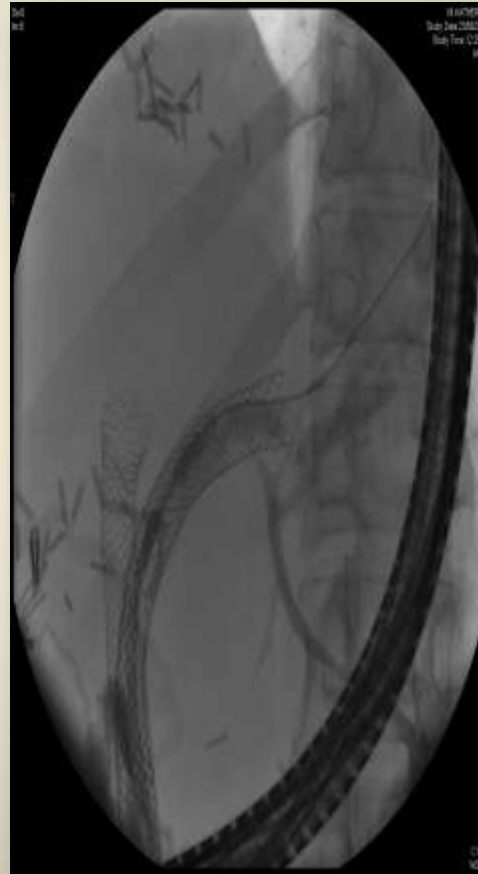




RFA for Occluded Metal Stent



RFA for Blocked SEMS



Stenting for Malignant Bile Duct Obstruction

Summary:-

- Management dependant upon detailed pre intervention assessment.
- Metal stenting in almost all settings.
- Covered stents may be optimum in extrahepatic obstruction.
- Intervention for hilar strictures requires multi disciplinary approach.
- New techniques for improving stent patency /relieving stent occlusion