INTERVENTION RADIOLOGY

• Vascular intervention

• Nonvascular intervention

- important to establish a good radiologist/patient relationship and to obtain informed consent

M.Roček, J.Peregrin
The procedure should be undertaken only if there is a clear clinical indication.

Any procedure should be in the best interest of the patient.

The potential benefits of the procedure should outweigh the risk.
Hepatobiliary intervention
Biliary Interventions - 1970's

E. Ring

C. Cope

A. Lunderquist
Cause of extrahepatic cholestasis

Common-duct stones
Carcinoma: head of pancreas
ampulla
bile duct
Cause of extrahepatic cholestasis

Biliary structure

Iatrogenic (post-surgical, 95%)
Pancreatitis
Sclerosing cholangitis
Nodal compression
Percutaneous transhepatic cholangiography/drainage

- ERCP
- Percutaneous
  - External drainage
  - External/internal drainage
  - Internal drainage
Stents

- Plastic stents
  12 F transhepatic tract
  Increased risk of hemobilia, migration
  Reduced patency
  Two-stage procedure
  Allows exchange
Stents

- Metal stents
  - 7 F transhepatic tract
  - Increase patency
  - Expensive
  - Non-removable
Complications

- Pain
- Hemobilia
- Pneumothorax, fluiodo(bilo)/hemothorax
- Bile effusion
- Biliary peritonitis
- Bacteraemia/septicemia
Stents

Complications

Patient discomfort/pain at time of deployment

Hemobilia

Stent-related complications:

Plastic stents- migration 3%, occlusion 6-25%

Metal stents- tumor overgrowth (7-14%)
Hepatobiliary intervention

Contraindications
Abnormal blood coagulation profile (INR >2.0, platelets <80 000)
Ascites
18 měsíců
18 měsíců
23 mésiců
Uroradiological interventions

- Percutaneous nephrostomy
- Percutaneous antegrade pigtail double J stent insertion
Urinary obstruction

Cause are multiple:
calculi
mass/tumor
retroperitoneal fibrosis
bladder outflow obstruction
neurological deficit
Benign structure

- If newly formed (less than 3 months), can be successfully treated with balloon dilatation.
- Strictures secondary to surgery, radiotherapy, vascularized segments, as well as ureteric strictures or strictures involving a transplanted kidney, have a low success with balloon dilatation, and ureteric stenting should be considered.
Malignant structure

- Required stenting

Complications: malposition/migration of the stent

Inability to cross a tight malignant stricture
Complications:

Pneumothorax
Urinoma
Hemorrhage
Urosepsis (7% risk of septic shock)
Plastic stents

Metallic stents
Transplant kidney