

Genitourinary radiology

Procedures:

PONDER: When ordering, ask yourself:

- Will this change my management?
- What will be my next step, if its normal or abnormal?
- How much does this test cost?

PROTECT the patient: presume any woman of child-bearing age is **PREGNANT**

PREPARE the patient for the procedure:

ULTRASOUND requires a full bladder

INTRAVENOUS PYELOGRAM requires nil-by-mouth for the night before

CT scan requires 4 hrs fasting, then 1 litre of cordial-flavoured contrast

ANGIOGRAPHY: shave both groin sides, NBM for 4-6 hrs

Complications include embolism, dissection, aneurysm

CONTRAST: Ask about previous **reactions** to contrast studies

ALSO: ask about **myeloma** and **renal failure**

Ultrasound- (\$120)

Need full bladder

- Assess kidneys, bladder, uterus, ovaries, adnexal masses, fluid
- Will show obstruction and cancer/cyst of the kidney
- **!! most importantly!! Ectopic pregnancy: b**
 - use ultrasound to confirm intra-uterine pregnancy
 - 5 wks = gestational sack
 - 6 wks = foetal pole
 - 7 wks = foetal heart beat
- one week earlier for transvaginal ultrasound

Radiography: IVP(\$120) or Cystogram (\$160)

- Calculi, especially "STAGHORN" calculi – 90% of stones are opaque
- Reflux: on cystogram, seen as contrast regurgitating up the ureter
- Cancer of the kidney on IVP (distorted silhouette)
- "Horseshoe" kidney: "kissing calyces" very close together
- "Pelvic" kidney: normal, but in pelvis
- do a cystogram if rupture of bladder suspected
- **INCIDENTALLY** might find **sclerotic (hyperdense) bone mets:**
 - Prostate cancer in men, breast cancer in women

CT (\$400)

- for renal imaging: **will show cancer, pyelonephritis, cysts**
- For imaging of prostate cancer pre radiotherapy
- Kidney infection will look like a diffuse "haze" in the peri-renal fat

Angiography (\$750) eg. aortogram, renal angiogram

- Mainly indicated for renal artery stenosis

Interventional radiology:

Percutaneous nephrostomy when there is an obstruction which can not be relieved by putting a catheter up through the ureter.
Could cause major renal bleed

Percutaneous balloonoplasty of renal artery when there is stenosis.

Might end up totally occluding the renal artery, or sending an embolism into it.

