North Shore
Division of Family Practice

RADIOLOGY: FROM REQUISITION TO REPORT

Main Points from Dr. Simon Bicknell's Presentation – October 27/10

Ultrasound Uses:

- Musculoskeletal, e.g., tendon rupture (Achilles), tendon tear (rotator cuff)
- Lumps and bumps, very useful to determine if cystic vs. solid
- Diverticulitis
- Gall Bladder, Appendicitis diagnosis
- Obstetrics, e.g., spina bifida, Nuchal Translucency (at NS Medical Imaging)
- Foreign bodies especially wood (better to use x-ray for glass)
- Aortic Aneurysm screening, but CT is best for following diameter over time (no compression by tech)
- Prolotherapy (injection of dextrose into tendons) helps selected cases of tendon injury and ultrasound can show in whom it will provide benefit.

MRI Uses:

- Cardiac MR more commonly used now to assess who will benefit from bypass
- Staging of rectal Ca
- Breast MR indications:
  - Known Breast Ca, aggressive tumour or premenopausal - to rule out bilateral breast Ca and to decide surgical management
  - If BRCA 1 or 2 positive > refer to BCCA for MRI screening if high risk
  - Positive axillary Ca but no primary tumour found
  - Disadvantage: detects lots of benign lumps
- Private MRI coming December 15, 2010 at NS x-ray current location

CT Uses:

- CT angiogram is best test for assessing carotids after stroke or TIA but U/S may be useful esp > 80yo, or comorbid illness and poor surgical candidate
- CT colonography, when to order? (Barium enemas no longer done)
  - Specialist with failed colonoscopy or technically difficult scope
  - Cancer with tight stricture, to assess for proximal lesion
- CT head – without contrast is a good screening tool. Order with contrast if previous history of cancer.

Various:

- **Carotid stenosis**: N < 50%; 50 – 70%; or > 70%. Type of plaque (stable/soft) is also important
    - Best treatment for (symptomatic) is still endarterectomy but some studies support stents
- **Vena cava filters:** Pregnancy, post craniotomy, or failed anticoagulation
- **Radiofrequency ablation:** renal masses of < 3 cm, e.g., Renal cell ca
- **Rectal stents** for Ca colon with obstruction - to reduce morbidity during resection or for palliation
- **Uterine Artery Embolization** for fibroids - for menorrhagia, not for mass effect symptoms
- Radiologists can insert **ports** (no surgeon required). **Pleur-X catheter** for palliative ascites or thoracentesis. Helpful for recurring effusions.
- NS X-ray does **digital mammography** for diagnostics but not screening at BSP. Digital is not clearly better - some decrease in artefact, same dose of radiation.
- **UGI Series** - still done at LGH. Helpful for elderly, and to r/o esoph Ca
- **Nuchal Translucency (NT)-** increase is associated with higher risk of aneuploidy
    - NT > 4 mm » increased congenital heart disease risk (even with N amniocentesis). Need fetal echo.
- **Kyphoplasty** available at LGH for compression fracture (injection of cement). Helpful for acute fracture, pain management. Radiologists can also try facet joint blocks at level above and below the fracture.
- **How to contact the LGH radiologist?** There should be one for each area (e.g. CT, ultrasound.) If you need a same-day report, ask for the radiologist in appropriate department "hot seat".
    - Simon Bicknell says it's OK to use his cell (in directory) for radiology questions; after 1200 there is a radiologist on call.
- **Central booking** will soon be in effect. First available location, pt may have to travel (Gr Vancouver including Maple Ridge, UBC, Langley, etc). Doc can indicate a specific hospital. Patients should be made aware. LGH radiologists encourage this practice as they WILL NOT REREAD scans done elsewhere. Our specialists are aware. This matters if your patient is referred to one of them, as they will often review the images with us prior to surgery.
- **LGH** equipment, radiologists, techniques are as good as anywhere