South West Radiologists’ Association
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IMAGING THE PETROUS TEMPORAL BONE
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The best imaging investigation of the ear is by thin section, high resolution CT in axial and coronal planes. This can show small structures in the middle ear cavity but a sound knowledge of the sectional anatomy is essential. Acquired cholesteatoma is essentially a clinical diagnosis and imaging is only necessary if there are complications. Imaging is however essential for the congenital type of cholesteatoma particularly in the petrous pyramid. Magnetic resonance has largely replaced CT for the soft tissue demonstration of masses in the petrous temporal bone and posterior cranial fossa particularly when assisted by Gadolinium enhancement. GdMRI is now the definitive investigation for acoustic neuromas although adequate preliminary screening is necessary to select the patients for GdMRI. Tumours of the middle ear cavity such as glomus tumours are best assessed by a combination of HRCT and GdMRI.

GATED CARDIAC ISOTOPE SCANNING IN CANDIDATES FOR MAJOR VASCULAR SURGERY
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The outcome of 95 patients having gated cardiac isotope scanning for estimation of left ventricular ejection fraction prior to major vascular surgery was reviewed. The aim of the study was to see whether the test altered surgical management and if it was cost-effective.

Eleven patients had low ejection fractions (taken as less than 40%). Of these 8 had aortic aneurysms, 3 of which were symptomatic. Two of these 3 patients (with EFs of 30% and 31%) had elective surgical repair and did well. One man with a very low EF of 12% did not have surgery and subsequently died of carcinoma of bronchus. Six patients with asymptomatic aortic aneurysms were treated conservatively and followed up by ultrasound. Of these one increased in size by 1.1 cm in one year and then ruptured, requiring emergency repair. Of the other 53 patients have died of ischaemic heart disease and 2 are still alive.

Three patients with peripheral vascular disease had ejection fractions less than 40%. None of these were denied surgery but the surgical approach was modified, e.g. fem-fem crossover grafting instead of aorto-bifemoral grafting. 2 out of these 3 patients died in the postoperative period.

The overall peri-operative mortality was 6% (5/8) in patients with ejection fractions greater than 40%, and 40% (2/5) in patients with ejection fractions less than 40%.

We conclude that a low ventricular ejection fraction is a useful predictor of increased risk of peri-operative mortality.

A low ventricular ejection fraction by gated cardiac isotope scanning influences the decision to operate in asymptomatic aortic aneurysms and, when very reduced, in symptomatic aneurysms. The cost of the test is offset by potential surgical savings.

RADIOLOGIC FEATURES OF COLONIC LYMPHOMA STUDIED ON BARIUM ENEMA EXAMINATION
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Colonic involvement by lymphoma occurs in up to 24% of patients’ studies at autopsy yet is rarely diagnosed on barium enema examination.

We have retrospectively reviewed patients with lymphoma involving the colon examined by barium enema in our department over the last 6 years. Details of patients were obtained from reviewing departmental records and by consultation with the oncology service. Five cases of lymphoma were examined with colorectal involvement. 4 Patients had secondary disease from non-Hodgkins lymphoma and one had primary disease. Symptoms referable to the bowel included diarrhoea, change in bowel habit, abdominal pain and weight loss.

The radiographic features on barium enema examination were analysed in detail and are discussed. The important abnormalities comprised strictures (4 cases), infiltrating plaques (2 cases), multiple nodular filling defects (2 cases), extra luminal masses (3 cases) and intraluminal mass (1 case). The most frequent site of localised involvement was the rectosigmoid.

The distinction of strictures due to lymphoma and those due to carcinoma or other causes is important and is discussed. Using radiographic appearances alone this distinction may be difficult and can often only be made by histological analysis. Widespread nodular lymphoma involvement may be mistaken for colonic polyposis, one of the colitides or lymphoid nodular hyperplasia. Differentiation between these entities is possible on account of the characteristic appearance of the nodules in association with other features. The relevance of lymphoid nodular hyperplasia and a possible relationship with neoplasia is discussed.

PERCUTANEOUS LUNG BIOPSY—A JUSTIFIABLE OUT-PATIENT PROCEDURE?
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This paper reviewed 125 consecutive percutaneous lung biopsies performed over a 31/2 year period in order to assess the efficacy and safety of the technique and its applicability to out-patients.

Numerous studies have demonstrated that most pneumothoraces are identified immediately following biopsy and most of the remainder which require treatment are detected at 1 hour. Despite this, there have been no U.K. reports of biopsies being performed on an out-patient basis.

After the first 20 biopsies in this series a conscious decision was taken to not admit any patient for a procedure unless there were pressing reasons for doing so.

A protocol for patient selection was presented and a standardized technique for performing the lung biopsy was described. An expiration chest x-ray is obtained on all patients 1 hour following the biopsy. Those with no evidence of pneumothorax are sent home in the company of a friend or relative with strict instructions to contact their own G.P. or...
long-term follow up of renal carcinoma with venous involvement

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Carcinoma of the kidney accounts for 1–2% of all malignancies. Surgery remains the only curative therapy available with the prognosis worsening with advancing stage. Renal cell carcinoma is unique in producing tumour thrombi which grow along the renal vein, inferior vena cava and may ultimately invade the right atrium. Although such venous involvement places the tumour in a higher stage (stage 3) several authors have suggested that radical excision of the primary lesion with the thrombus may be associated with a good prognosis. It has also been shown that the presence of lymph node involvement conveys a worse prognosis than venous involvement alone.

Eighty-two patients undergoing surgery for renal cell carcinoma at the Bristol Royal Infirmary between 1983 and 1988 have been studied. In 34 cases the tumour had breached the renal capsule and in 47 cases it had not. Fifty-eight cases showed no sign of venous involvement on pathological review whereas 26 patients had venous involvement and of these 9 had tumour within the inferior vena cava. The 3-year survival of the group was 63% for patients without venous involvement and 19% for those with venous involvement (both renal and inferior caval). Despite the apparently poor prognosis for venous involvement it is notable that some patients have had a good outcome. For example 6 out of 9 patients with caval involvement are still alive with a mean survival of 28 months (range 6–60 months). These are the patients who have been meticulously staged and selected for surgery. The patients who died early after caval exploration died from 1) lung metastases which were almost certainly missed at the time staging and 2) postoperative cardiorespiratory problems.

In conclusion we think that more radical surgical approach to patients with venous involvement is justified and is likely to improve survival significantly. However patients with caval involvement should undergo meticulous staging to rule out the presence of distant metastases and to accurately define the extent of venous involvement. They should also be medically fit in order to withstand such major surgery.