

There was a striking and previously unreported relationship between diastolic BP and having suffered a low trauma fracture. Patients without fracture (n=38) had a median diastolic BP of 70.0 (95%CI 65.9-76.1) compared with 85.0 (95%CI 80.0-88.0) in patients who had sustained at least one fracture (n=42) (p<0.001). There was no relationship with diastolic BP and steroid or bisphosphonate use.

There was also a previously unreported correlation between lower HDL levels and BMD at the hip (r=-0.28, p=0.02). Hip BMD in patients with HDL<1.5 v HDL>1.5 0.765 (95%CI 0.731-0.823) v 0.726 (95%CI 0.624-0.785), p=0.05. There was no relation with statin use. Overall, 38 (47.5%) patients had cholesterol levels >5.2 mmol/l, and just 14 patients were taking lipid lowering therapy.

Conclusion: There is a substantial unmet need for cardiovascular risk assessment in primary osteoporosis, in which cardiovascular disease is common. There are potentially interesting links between hypertension and lipid abnormalities and some aspects of bone health, which merit further investigation. All these patients will have regular CVS monitoring at our clinic.

Effect of a new chest pain clinic on cardiology referral patterns.

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A new chest pain clinic (CPC) saw 106 patients in the first two months (February and March 2006). A final report with diagnosis, recommended treatment or further investigation was faxed within 24 hours.

Most referrals were from GPs (66%), with 14% from the Emergency Department (ED) or Clinical Decision Unit. Cardiologists referred 20% from routine referral letters to cardiology out-patients (OP).

The diagnosis was non-cardiac chest pain in 65%, stable/possible angina 30%, unstable angina 4%. No patients had myocardial infarction.

The final outcomes were referral back to GP in 62%, cardiology OP referral 31%, medical OP referral 3% and 4% patients were admitted.

Further cardiac investigations, mostly coronary angiography, were planned in 30% patients. If the CPC had not been available, the referring doctor would have sent 32% patients to cardiology OP, 27% to another chest pain clinic, 23% for open access investigation, 13% to the ED and 4% for admission.

We concluded that the CPC had resulted in a small reduction in GP referrals to the ED. The reduction in cardiology OP referrals by the referring doctor is exactly offset by the generation of new cardiology OP referrals from the CPC. However, 95% GP referrals (84% all referrals) to the CPC were seen within 1 week. Additional work was captured that would have been referred to the CPC of another hospital.

Isolated T3 toxicosis complicating metastatic thyroid follicular thyroid cancer: a trap for the unwary during long-term thyroxine suppression therapy.

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We present a case of a 63 year old man who developed T3-toxicosis 13 years following thyroidectomy and ablative radioiodine therapy for follicular thyroid cancer (FTC). Although asymptomatic (free T4 18.4 pmol/l, TSH <0.01 mU/l) while taking levothyroxine (T4) 200 µg/d during long-term suppressive thyroxine therapy he later presented with uncontrolled atrial fibrillation and congestive cardiac failure. Thyrotoxicosis due to excessive levothyroxine intake was considered however free T4 levels were similar to previous measurements (14.7 pmol/l). The possibility of isolated T3-toxicosis was suspected and confirmed (free T3 levels varying between 10.5-23.8 nmol/l). Iodine-avid pulmonary and hepatic metastases were visualized on I¹²³ scanning, in the absence of neck uptake, and thyroxine therapy was withdrawn prior to further treatment of 3700 MBq I¹³¹.

Comment: Thyrotoxicosis caused by thyroid cancer occurs rarely and is usually due to follicular neoplasia, often in association with pulmonary and/or bony metastatic disease. As in this case, the biochemical profile is frequently that of isolated T3-toxicosis. While treatment and survival of cases with thyrotoxicosis appear similar to euthyroid cases with FTC, development of hyperthyroidism implies a large tumour bulk due to reduced iodine concentrating efficiency. We await clinical and biochemical responses to I¹³¹ in this case however his prognosis remains guarded.

ST elevation in lead aVR during exercise testing should not be ignored.

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The significance of ST elevation (STE) in lead aVR during exercise is controversial. We aimed to assess the diagnostic value of STE in aVR during exercise prior to Tc^{99m}-sestamibi scanning and its predictive value in identifying ischemic territory and angiographic findings.

Consecutive patients for Tc^{99m}-sestamibi perfusion imaging between April and Aug 2004 were enrolled. Their peak exercise ECGs were coded by 2 blinded investigators. STE ≥0.05mV in lead aVR was significant. Gated perfusion imaging and angiographic findings were assessed.

STE in lead aVR occurred in 25% (138/557) of patients. More patients with STE in aVR had reversible defects on imaging compared with those that had no STE in aVR (41% 56/138 vs 27% 114/419, p = 0.003). Defects indicating a left anterior descending artery (LAD) culprit lesion were more common in the STE aVR group (20% 27/138 vs 9% 39/419,

p=0.001). There was a trend towards coronary artery stenosis (>70%) in a double vessel distribution involving the LAD in those patients who had STE in aVR compared to those who did not (22% 8/37 vs 5% 4/76, p=0.06)

Logistic regression demonstrates that STE in aVR (OR 1.36 p=0.233) is not an independent predictor of inducible abnormality when adjusted for STD >0.1mV (OR 1.7 p=0.03), however using anterior wall defect as an endpoint STE in aVR (OR 2.77 p=0.008) remained a predictor after adjustment for STD (OR1.4 p=0.281).

STE in aVR during exercise does not diagnose significantly more inducible abnormalities than STD alone. However, unlike STD which is not predictive of a territory of ischemia, STE in aVR is associated with an anterior wall reversible defect.