

## Increased fracture risk in HIV-positive women

Risk factors for osteoporosis, including low BMI, weight loss, cigarette, alcohol and drug use, low blood-cell counts and disturbed menstruation, tend to be more prevalent in HIV-positive women than in the general population; HIV-positive women are therefore thought to have increased fracture risk. To assess fracture risk in HIV-positive women, Prior *et al.* conducted a case-control study that compared osteoporosis risk factors and fracture incidence in 138 HIV-positive women from the Canadian Women's HIV+ Study with those in 402 age-matched and region-matched controls from the Canadian Multicentre Osteoporosis Study. Of the 138 HIV-positive women, 100 had received antiretroviral therapy.

Significantly more HIV-positive women than controls had experienced fragility fractures (26.1% vs 17.3%). HIV-positive women were more likely than controls to smoke or use injection drugs, be treated with glucocorticoids, and have oligomenorrhea, and reported more weight-cycling of 10 kg or more. There was, however, no difference in BMI or BMD between the two groups.

The authors suggest that the increased fracture risk associated with HIV, despite apparently normal BMD, might be due to HIV-associated structural differences in bone microarchitecture that are not reflected in BMD changes. Bone-structure studies of HIV-positive women are planned. The relationship between antiretroviral therapy and osteoporosis will also be the subject of future study.

**Original article** Prior J *et al.* (2007) Fragility fractures and bone mineral density in HIV positive women: a case-control population-based study. *Osteoporos Int* **18**: 1345–1353

## Cardiovascular disease risk in women with polycystic ovary syndrome

Polycystic ovary syndrome (PCOS) is an endocrine disorder that occurs in about 1 in 10 women of reproductive age. Symptoms include infrequent periods, hyperandrogenism, and/or polycystic ovaries detectable by ultrasound. Various risk factors for coronary artery disease are also apparent, including insulin resistance, type 2 diabetes, metabolic syndrome, elevated

triglyceride:HDL ratio, and vascular dysfunction. PCOS may therefore account for a significant proportion of atherosclerotic heart disease observed in women but the precise level of cardiovascular disease (CVD) risk in women with PCOS is unclear.

Detection of coronary artery calcium (CAC) confirms coronary atherosclerosis independently of symptoms or risk factors, and the quantity of CAC relates directly to the risk of sudden cardiac death. Shroff *et al.*, therefore, investigated the presence of CAC, a marker for subclinical atherosclerosis, in 24 young obese women with PCOS and in 24 controls matched for age and weight. Traditional CVD risk factors, insulin resistance, and markers of inflammation were also compared between the two groups.

The authors detected CAC in eight of the women with PCOS but in only two of the controls. No significant difference was observed in traditional CVD risk factors and markers of inflammation. The authors conclude that young, obese women with PCOS have an increased risk of early asymptomatic coronary atherosclerosis compared with obese controls that is independent of traditional CVD risk factors. They recommend that young women with PCOS are screened, aggressively counselled and treated to prevent symptomatic CVD.

**Original article** Shroff R *et al.* (2007) Young obese women with polycystic ovary syndrome have evidence of early coronary atherosclerosis. *J Clin Endocrinol Metab* [doi:10.1210/jc.2007-1343]

## Conservative management of congenital hyperinsulinism shows good neurological outcomes

Congenital hyperinsulinism (CH) is a genetic disorder characterized by inadequate suppression of insulin secretion in the presence of recurrent hypoglycemia. Children with CH are at increased risk of developmental disorders such as psychomotor retardation, learning disabilities and other neurological problems. Although surgical management is currently recommended in many centers, the long-term adverse effects of this treatment can be considerable. Mazor-Aronovitch and colleagues studied the neurodevelopmental outcomes in a homogenous group of patients with CH who were treated with a conservative, nonsurgical approach.