

Based on these data, the premise of non-inferiority of the paclitaxel stent was not proven. Overall, the authors conclude, the use of the sirolimus-eluting stent in patients with DM and coronary-artery disease was associated with a reduction in late luminal loss, suggesting a lower risk of restenosis compared with the paclitaxel-eluting stent.

Carol Lovegrove

Original article Dibra A *et al.* (2005) Paclitaxel-eluting or sirolimus-eluting stents to prevent restenosis in diabetic patients. *N Engl J Med* 353: 663–670

A single infusion of zoledronic acid is safe and effective for the treatment of Paget's disease

Oral bisphosphonates, which are currently used for the treatment of Paget's disease, are given to patients daily for 2–6 months. These patients are also required to fast before and after dosing, and to remain upright for 30 min after treatment, to reduce gastrointestinal complications. More effective and convenient drugs are, therefore, needed to increase compliance.

In two similar randomized, double-blind, controlled, 6-month trials, for which results were pooled and jointly analyzed, Reid and colleagues compared the effects of a single 15-min infusion of zoledronic acid with those of oral risedronate in 357 patients diagnosed with Paget's disease. Patients either received 5 mg zoledronic acid infusion followed by placebo tablets, or saline infusion followed by 30 mg risedronate for 60 days. Participants also received daily calcium and calciferol supplements.

At 6 months, 96.0% of patients in the zoledronic group experienced a therapeutic response (shown by normalization of alkaline phosphatase levels, or a reduction of at least 75.0% in their excess alkaline phosphatase), compared with 74.3% in the risedronate group. Adverse events were similar in both groups. Furthermore, after 12 months, 21 out of 82 patients lost therapeutic response in the risedronate group compared with just 1 out of 113 patients in the zoledronic group.

The authors conclude that one infusion of zoledronic acid is safe and effective for the treatment of Paget's disease. Overall, zoledronic acid was superior to risedronate in terms of degree of disease suppression,

rapidity of response and sustained remission in patients 12 months after the trial.

Marie Lofthouse

Original article Reid IR *et al.* (2005) Comparison of a single infusion of zoledronic acid with risedronate for Paget's disease. *N Engl J Med* 353: 898–908

Hypertension in patients with acromegaly

Noncontrolled, small studies have documented the high incidence of hypertension in patients with acromegaly, in whom chronic excess of growth hormone and insulin-like growth factor 1 (IGF-1) contribute to fluid retention and increased cardiovascular mortality rates. This case-control study by Vitale *et al.* aimed to determine the prevalence of hypertension in patients with acromegaly, and to evaluate predictive factors for increased systolic and diastolic blood pressures.

In total, 200 patients with acromegaly were compared with 200 control individuals from the same geographic area. Populations were matched for age, sex, BMI, and smoking status. The incidence of hypertension in patients with acromegaly was nearly double that of the control group (46% versus 25%). Although the prevalence of hypertension increased with increasing age in both groups, hypertension developed a decade earlier in the acromegaly group, and was associated with lower systolic, but higher diastolic, blood pressure than that of the hypertensive control group. These differences remained even in subgroups matched for age and sex. The preferential increase in diastolic blood pressure might be explained by the stimulatory effects of excessively high levels of growth hormone and IGF-1 on proliferation of vascular smooth muscle. By contrast, in the control group, higher levels of IGF-1 correlated with lower diastolic blood pressures, even after adjustment for age. This points, perhaps, to a protective role for IGF-1 in the general population.

The authors conclude that the pathogenesis of hypertension in acromegaly differs from that in the general population, and call for further studies.

Caroline Barranco

Original article Vitale G *et al.* (2005) Hypertension in acromegaly and in the normal population: prevalence and determinants. *Clin Endocrinol* 63: 470–476