

patients compared with control subjects. Raised levels of CA 125 also correlated with increased severity of heart failure, as classified using NYHA criteria. Tumor marker levels did not alter significantly following treatment, and were similar in patients with pleural effusion and those without. Interestingly, CA 125 was significantly elevated in patients with pericardial effusion.

Although this study was limited by small patient numbers and a short follow-up, it highlights a potential role for CA 125 in the serial assessment of heart failure.

Claire Braybrook

**Original article** Varol *et al.* (2005) Tumour marker levels in patients with chronic heart failure. *Eur J Heart Fail* [doi:10.1016/j.ejheart.2004.12.008]

## Valsartan reduces atrial fibrillation in patients with heart failure

Atrial fibrillation (AF) occurrence is generally considered to worsen the prognosis of patients with heart failure (HF), and recurrence following AF treatment is very common. Cardiac remodeling is thought to be a major contributory factor. The Valsartan Heart Failure Trial (Val-HeFT) investigated the use of the angiotensin-receptor blocker valsartan in addition to normal therapy in patients with HF.

Maggioni *et al.* conducted a retrospective analysis of 4,395 Val-HeFT patients in sinus rhythm at baseline to investigate how development of AF affected HF outcomes, whether valsartan can prevent AF, and to identify independent predictors of AF. Patients had been randomized to receive either valsartan 40–160 mg twice daily ( $n=2205$ ) or placebo ( $n=2190$ ).

AF occurrence increased the risk of all-cause death by 40% and that of combined morbidity and mortality by 38%. Over a mean follow-up of 23 months, valsartan showed a significant relative risk reduction for AF development of 37% compared with placebo (absolute risk reduction 2.83%). In a multivariate analysis, increased brain natriuretic peptide level doubled the risk of AF, and age  $\geq 70$  years and male sex were strong predictors of AF.

This study provides further evidence that AF occurrence is a negative prognostic factor in patients with HF, although AF development was defined from only one baseline

electrocardiogram. Valsartan in combination with normal HF therapy seems to lessen the risk of AF, but the authors suggest specifically designed, randomized clinical trials to confirm this.

Rebecca Ireland

**Original article** Maggioni AP *et al.* (2005) Valsartan reduces the incidence of atrial fibrillation in patients with heart failure: results from the Valsartan Heart Failure Trial (Val-HeFT) *Am Heart J* 149: 548–557

## Pioglitazone improves cardiovascular risk markers for patients with diabetes

Results of the Pioneer study suggest that pioglitazone has anti-inflammatory and anti-atherosclerotic effects, independent of glycemic control, which might be the direct result of peroxisome proliferative activated receptor gamma activation.

In this prospective open-label randomized trial, Pfützner and colleagues from Germany randomized 192 patients with type 2 diabetes to receive either pioglitazone 45 mg or glimepiride 1–6 mg, with the intention of achieving optimal glycemic control. Blood samples were assayed at baseline and after 6 months, to assess metabolic and cardiovascular markers. Carotid intima-media thickness was also measured.

A total of 173 patients (mean age 63 years; 107 male) completed the study. Glycated hemoglobin levels were comparable between treatment arms, but the pioglitazone arm showed statistically significant reductions in fasting glucose, insulin, LDL/HDL ratio, high-sensitivity C-reactive protein, matrix metalloproteinase 9, monocyte chemoattractant protein 1, and carotid intima-media thickness. These differences remained when the patient groups were stratified into therapy responders and nonresponders on the basis of their glycated hemoglobin levels, indicating that the reductions observed were independent of the improvement in metabolic control.

A larger study is underway to determine whether the improvements in surrogate markers seen with pioglitazone result in reductions in cardiovascular events for patients with diabetes.

Caroline Barranco

**Original article** Pfützner A *et al.* (2005) Improvement of cardiovascular risk markers by pioglitazone is independent from glycemic control: results from the Pioneer study. *J Am Coll Cardiol* 45: 1925–1931