

## CARDIOVASCULAR DISEASE

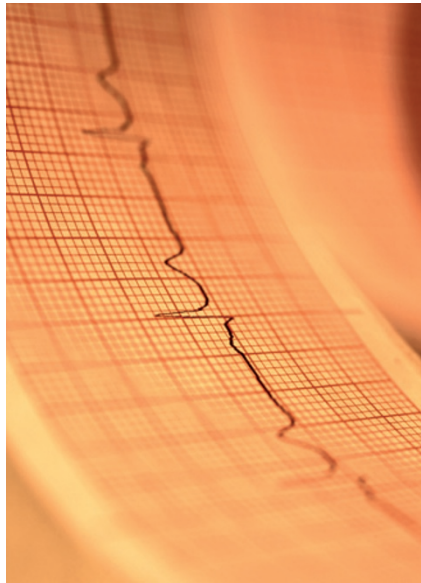
# Catheter ablation of atrial fibrillation improves eGFR

A prospective study has shown that sinus rhythm maintenance by catheter ablation of atrial fibrillation (AF) is associated with improved estimated glomerular filtration rate (eGFR).

Patients with chronic kidney disease are at increased risk of cardiovascular events, and several overlapping risk factors for developing AF and renal insufficiency exist. "Previously, it has been demonstrated that AF ablation improves left ventricular function in patients with heart failure and AF," says investigator Yoshihide Taaskahashi. "Our group have performed many AF ablation procedures in patients with heart failure and found that eGFR increased after maintenance of sinus rhythm in these patients, which led us to believe that renal dysfunction might be associated with atrial tachyarrhythmias."

The new study, published in *Circulation*, included 386 patients with paroxysmal, persistent or long-standing persistent AF and mild to moderate renal dysfunction.

Following AF ablation, 72% patients were free from arrhythmia by the end of the 1-year follow-up period. Overall, patients whose arrhythmias were abolished by ablation showed an increase in mean



eGFR from baseline whereas patients with recurrent arrhythmias showed a decrease ( $3 \pm 8$  ml/min/1.73 m<sup>2</sup> versus  $-2 \pm 8$  ml/min/1.73 m<sup>2</sup>, respectively). In addition, a reduction in serum creatinine levels was observed in patients free from tachyarrhythmias, whereas an increase was seen in those who experienced recurrences. Among those patients who had maintenance of sinus rhythm, the greatest improvement in kidney function was associated with lower eGFR and lower left ventricular ejection fraction at baseline.

"One of the exciting issues is whether improvement of renal function after successful AF ablation can affect mortality. For this issue, we need a prospective, randomized clinical trial," says Takahashi.

*Helene Myrvang*

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