

## Prediction of response to revascularization in patients with renal artery stenosis by Tc-99m-ethylenedicysteine captopril scintigraphy

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The aim of the present study was to assess the predictive value of captopril scintigraphy with the new renal agent  $^{99m}\text{Tc}$ -ethylenedicysteine ( $^{99m}\text{Tc}$ -EC) for post-interventional improvement in blood pressure. Twelve patients who had persistently high blood pressure with previous demonstration of various degrees of renal artery lesion on angiography were included into the study. Baseline and captopril scintigraphies were performed on the same day at 4 hour intervals after the injection of 74 and 296 MBq of  $^{99m}\text{Tc}$ -EC, respectively. All patients had percutaneous transluminal angioplasty (PTA), and improvement in blood pressure was evaluated 3–6 months after the intervention.  $^{99m}\text{Tc}$ -EC captopril scintigraphy successfully predicted a positive or negative outcome in 11 of 12 patients. In one patient with captopril induced renal function deterioration, scintigraphy failed to predict post-interventional response. Our preliminary findings showed that  $^{99m}\text{Tc}$ -EC captopril scintigraphy can be used to determine patients who will benefit from revascularization.

**Key words:** Tc-99m-ethylenedicysteine, renovascular hypertension, renal artery stenosis, captopril scintigraphy