

## Differences between $^{99m}\text{Tc}$ -DTPA and $^{99m}\text{Tc}$ -MAG3 captopril renographies in renovascular hypertension

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Captopril renography (CRS) with  $^{99m}\text{Tc}$ -DTPA and  $^{99m}\text{Tc}$ -MAG3 was performed on a 21-year-old woman with renovascular hypertension due to right renal artery stenosis caused by fibromuscular dysplasia. In the affected kidney, the renogram pattern was substantially changed with  $^{99m}\text{Tc}$ -DTPA and  $^{99m}\text{Tc}$ -MAG3 following the administration of captopril, and the quantitated renal uptake indicating individual renal function was significantly decreased in  $^{99m}\text{Tc}$ -DTPA and slightly decreased in  $^{99m}\text{Tc}$ -MAG3. In the contralateral normal kidney, the renogram showed some minor changes with both radioagents, while the quantitated renal uptake was significantly decreased with  $^{99m}\text{Tc}$ -DTPA and substantially increased with  $^{99m}\text{Tc}$ -MAG3. The combined use of physiologically different renal agents  $^{99m}\text{Tc}$ -DTPA and  $^{99m}\text{Tc}$ -MAG3 is helpful in investigating hemodynamic and functional changes in the stenosed kidney as well as the normal kidney in RVH.

**Key words:** captopril renography,  $^{99m}\text{Tc}$ -DTPA,  $^{99m}\text{Tc}$ -MAG3, renovascular hypertension, fibromuscular dysplasia