Severe Renal Artery Stenosis After Renal Sympathetic Denervation

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We present the case of a 73-year-old woman scheduled for renal angiography for severe recurrent refractory arterial hypertension 2 months after sympathetic renal denervation with the EnligHTN multielectrode catheter system (St Jude Medical, Saint Paul, Minnesota).

The angiogram confirmed right renal artery subocclusive stenosis at the site of previous radiofrequency application (Figure 1). After catheter-balloon dilation to advance the imaging catheter, optical coherence tomography showed severe diffuse neointimal hyperplasia (Figure 2).

Since 2012, several cases of renal stenosis after renal denervation have been reported, demonstrating a wide spectrum of clinical presentation, but presenting recurrent hypertension as most relevant finding (1).

In the previous trials HTN-1 (Symplicity Renal Denervation in Patient With Refractory Hypertension) (2) and EnligHTN-I (Safety and Efficacy of Study of Renal Artery Ablation in Resistant Hypertension)

FIGURE 1 Renal Angiogram

Right renal artery angiogram showing the absence of angiographic pre-existing stenosis (A), vessel irregularities immediately after radiofrequency delivery (B), and severe restenosis 2 months after the procedure (C).
Patients) (3), renal artery stenosis had been attributed mainly to pre-existing artery stenosis worsening and not to a de novo procedure-related adverse event. The increasing reports of the last call into question the safety of this procedure and point to this complication as a possible cause of therapy ineffectiveness.

REFERENCES


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