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고혈압콩팥병의 감별 진단과 신장전문의 협진 시기

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Secondary hypertension accounts for 5-10% of all hypertension cases but may represent up to 30% of patients under 40 years of age. Some cases are curable with surgery or medication. Appropriate screening tests should be performed when symptoms, signs, or a history suggestive of secondary hypertension are present (IB). Comprehensive screening for secondary hypertension should be considered for patients diagnosed with hypertension before their 40s (IB). Renovascular hypertension should be suspected in patients with hypertension onset before the age of 30 or after 55 years, worsening of baseline hypertension, abdominal bruits, resistant hypertension, acute rise in creatinine levels with ACE inhibitor use, or coexisting atherosclerotic vascular disease. Non-invasive screening methods should be prioritized, such as captopril renal scan, Doppler ultrasonography, and CT/MR angiography. Renal artery angiography is not recommended for clinically insignificant renal artery stenosis (IIIA). Stent treatment may be considered for patients with renal artery stenosis complicated by recurrent heart failure, resistant hypertension, unilateral kidney atrophy, chronic kidney disease, bilateral renal artery stenosis, or a solitary kidney. Other causes of secondary hypertension include primary aldosteronism (in cases of unexplained hypokalemia or adrenal tumors), pheochromocytoma (in cases of severe paroxysmal hypertension or symptoms of catecholamine excess), and sleep apnea (highly prevalent in obese patients and those with resistant hypertension). Kidney biopsy should be considered in hypertensive patients with normal kidney size who develop rapid increases in proteinuria, nephrotic syndrome, unexplained decreases in glomerular filtration rate, hematuria or active urinary sediment, or new-onset proteinuria or hematuria with chronic kidney disease. In cases with typical clinical presentations, hypertensive kidney disease can be diagnosed without a kidney biopsy. Chronic kidney disease is defined as an estimated glomerular filtration rate < 60 mL/min/1.73 m^2 for more than 3 months or evidence of kidney damage, and is classified as G1-G5 based on estimated GFR and A1-A3 based on albuminuria. The AASK study showed that 95% of kidney biopsy

patients had arterionephrosclerosis, with benign hypertension rather than malignant hypertension being more closely associated with hypertensive nephrosclerosis and loss of kidney function. Nephrology consultation should be considered when secondary hypertension is suspected, in cases of unexplained resistant hypertension, kidney biopsy is being considered, or the 5-year risk of chronic kidney disease progression is 3-5% according to the KDIGO 2024 guidelines. Renal hypertension accounts for 30-50% of secondary hypertension cases and can be classified as renal parenchymal or renovascular hypertension. The main mechanisms include fluid overload and activation of the renin-angiotensin-aldosterone system. Hypertension is a major cause of end-stage kidney disease in Korea (over 20%), and studies have shown that 18% of untreated hypertensive patients develop uremia and 10% die from uremic complications. Systematic risk stratification using the Kidney Failure Risk Equation and close monitoring are essential for hypertensive patients with kidney disease.

Keywords: secondary hypertension, hypertensive kidney disease, nephrology consultation, kidney biopsy, renovascular hypertension