

【Symposium 3-1】

Post-transplant, Treatment of Cardiovascular Disease

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Cardiovascular diseases are prevalent in kidney transplant recipients and are important causes of death. Coronary artery disease, heart failure, valvular heart disease, pulmonary hypertension, and atrial fibrillation are common and significant cardiovascular diseases in kidney transplant recipients. Both traditional and non-traditional risk factors contribute to the development of cardiovascular diseases in kidney transplant recipients. Traditional risk factors include hypertension, dyslipidemia, diabetes mellitus, and tobacco abuse. Non-traditional risk factors encompass obesity, the effects of immunosuppressants, oxidative stress, inflammation, mineral bone disease, and left ventricular hypertrophy. Among these risk factors, obesity is a growing global concern. The recent advent of glucagon-like peptide 1 receptor agonists shows promise in improving cardiovascular outcomes in obese patients.

The management of specific cardiovascular diseases in kidney transplant recipients is challenging due to the scarcity of high-level clinical evidence tailored to this population. For coronary artery disease, recommended treatments include aspirin, statins, adequate blood pressure control, beta-blockers, and timely revascularization. In heart failure, the use of diuretics, renin-angiotensin-aldosterone system inhibitors, beta-blockers, mineralocorticoid receptor antagonists, and sodium-glucose cotransporter 2 inhibitors is advised. For valvular heart disease, transthoracic echocardiography is the standard diagnostic test during initial evaluations. Guideline-directed medical therapy, similar to that for heart failure, is recommended for patients with left ventricular systolic dysfunction. Specialist referral for valvular intervention should be considered in cases of severe valvular heart disease. For pulmonary hypertension, specialist referral is advised following initial positive echocardiographic screening. Lastly, in treating atrial fibrillation, the choice and dosing of anticoagulants should be carefully tailored to the patient's renal function.

