

**Table S1** Genotyping of gene loci and its clinical significance

Gene loci	Genotype	Phenotype	Dose recommendations	Drug types	Representative drugs
<i>CYP2C9</i> *3	*1/*1	Strong metabolism	Standard dose	Angiotensin II receptor blocker	Losartan (adverse); telmisartan; candesartan; valsartan; irbesartan
	*1/*3	Normal metabolism	A lower dose		
	*3/*3	Weak metabolism	Very low dose		
<i>AGTR1</i> (1166A>C)	1166A/A	Normal sensitivity	Standard dose	–	Losartan; telmisartan; candesartan; valsartan; irbesartan
	1166A/C	Decreased sensitivity	Slightly higher dose		
	1166C/C	Very low sensitivity	High dose or other drugs		
<i>ADRB1</i> (1165G>C)	1165G/G	Decreased sensitivity	High dose or other drugs	β adrenergic receptor blocker	Metoprolol; carvedilol; atenolol; bisoprolol; labetalol
	1165G/C	Normal sensitivity	Standard dose		
	1165C/C	Increased sensitivity	A lower dose		
<i>CYP2D6</i> *10	*1/*1	Strong metabolism	Standard dose or high dose	–	Metoprolol; carvedilol; atenolol; bisoprolol; labetalol
	*1/*10	Normal metabolism	Standard dose		
	*10/*10	Weak metabolism	A lower dose		
<i>ACE</i> (I/D)	I/I	Decreased enzyme activity	Enalapril and imidapril	Angiotensin converting enzyme inhibitors	Benazepril; fosinopril; enalapril; perindopril; ramipril
	I/D	Normal enzyme activity	Applicable to all ACEI		
	D/D	Increased enzyme activity	Benazepril and fosinopril		
<i>NPPA</i> (2238T>C)	T/T	Normal sensitivity	Standard dose	Diuretic	Chlorothiazide; hydrochlorothiazide; chlortalidone
	T/C	Slightly higher sensitivity	A lower dose		
	C/C	High sensitivity	Very low dose		
<i>CYP3A5</i> *3	*1/*1	Normal metabolism	Standard dose	Calcium channel blockers	Nifedipine; felodipine; lacidipine; amlodipine; benidipine
	*1/*3	Slightly lower metabolism	A lower dose		
	*3/*3	Weak metabolism	Very low dose		

**Table S2** Antihypertensive drugs used in the control group

Drug types	Prescribed drugs
Angiotensin II receptor blocker	Telmisartan; valsartan
β-adrenergic receptor blocker	Metoprolol
Angiotensin converting enzyme inhibitors	Captopril; enalapril
Diuretic	Indapamide
Calcium channel blockers	Nitrendipine; amlodipine; extended release nifedipine
Others	Beijing hypotensive No. 0; Zhenju Jiangya tablet; compound kendir leaves tablets; reserpine