THE EFFECT OF THE PRESENCE OF MULTIPLE (ACCESSORY) RENAL ARTERIES ON BIOCHEMICAL PARAMETERS OF RENAL FUNCTION AND HEMODYNAMIC MEASUREMENTS

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What we already know

The incidence of accessory renal arteries (ARA) varies across the globe[1]

11.2% 25% 27.8% 25.8-46.2%

Scarce clinical data demonstrating either the presence or absence of correlation between ARA and arterial hypertension[2-3]

What we did

Retrospective patient chart review

155 patients included (80 without ARA, 75 with ARA)

All of the patients were treated for arterial hypertension in a tertiary care center's hypertension clinic

Serum urea, creatinine, Na, K, renin, aldosterone, aldosterone/renin ratio were measured for each patient

Height, weight, body mass index (BMI), blood pressure with estimated mean arterial pressure (MAP), number of antihypertensive medications used

Multi-slice computed tomography (MSCT) angiography of the renal arteries was conducted on each patient

	Patients with 2 renal arteries	Patients with >2 renal arteries	p value
Mean arterial pressure (MAP)/median; mmHg	95.7	100	0.016
Serum creatinine/median; umol/L	84.5	74	<0.001
Number of antihypertensive medications in chronic therapy list/median	3	1.5	<0.001

References

1. Vascular. 2016 Oct;24(5):531-7.
2. Am J Roentgenol. 2004 Jun;182(6):1521-4.
3. Evid Based Complement Alternat Med. 2021 Dec 29;2021:9957361.