9. EFFECT OF ALLOPURINOL IN REDUCING BLOOD PRESSURE IN HYPERTENSION WITH HYPERURICEMIA PATIENTS IN DR. MOHAMMAD HOESIN HOSPITAL PALEMBANG

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MPS 14-01 EFFECT OF ALLOPURINOL IN REDUCING BLOOD PRESSURE IN HYPERTENSION WITH HYPERURICEMIA PATIENTS IN DR. MOHAMMAD HOESIN HOSPITAL PALEMBANG

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Objective: Hyperuricemia will activate Rennin Angiotensin Aldosteron System (RAAS) through activation of Angiotensin I to Angiotensin II, increase intraglomerulus pressure, macrophage activator and cytokines production, vascular vasoconstriction. This process caused glomerulus fibrosis, natrium retention, increasing of blood volume and hypertension. Otherwise, overreaction of xanthine oxide in hyperuricemia will produce uncoupling mechanoenergetic and myocardial apoptosis. These conditions activate remodelling vascular and tissue injury, endothelial dysfunction and ended to atherosclerosis, hypertension and heart failure. Lately, Toma et all reported that uric acid stimulates the release of rennin by the macula densa dependent mechanism using micro vitro perfusion afferent arteriols in glomerular.
Feig demonstrate that allopurinol treatment can lower systolic and diastolic blood pressure compared to placebo. The mechanism of allopurinol lower blood pressure is lowering systemic vascular resistance and plasma rennin activity.

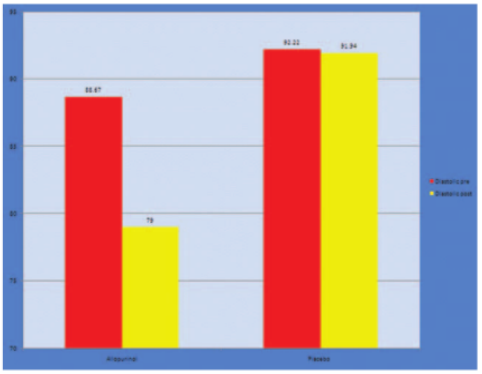
Design and method: Study was a double blind randomized clinical trial in the outpatient clinic and the inpatient ward of internal medicine since February to September 2015.

Results: Allopurinol Effect on blood pressure was measuring the systolic blood pressure and diastolic blood pressure before and after 8 weeks of drug administration. The mean systolic blood pressure before and after drug administration allopurinol group were 148,33 ± 13,394 mmHg and 135,00 ± 9,85 mmHg, respectively, while in placebo group was 151,67 ± 13,394 mmHg and 146,11 ± 6,78 mmHg, respectively.The diastolic blood pressure before allopurinol administration was 88,67 ± 3,45 mmHg, and 79,00 ± 4,02 mmHg after therapy. In placebo group, diastolic before and after placebo administration were 92,22 ± 7,321 and 91,94 ± 5,185, consecutively. Statistic test showed that there was a significant difference of systolic blood pressure before and after allopurinol administration compare to placebo (p = 0,001), and diastolic blood pressure before and after giving allopurinol compare to placebo p = 0,000.

Conclusions: Allopurinol had significant effect on lowering systolic and diastolic blood pressure.

Treatment Group	X±SD		*P**
	Before (mmHg)	After (mmHg)	
Allopurinol	148,33±13,394	135,00±9,85	0,001
Placebo	151,67±13,394	146,11±6,78	

[The comparison of mean systolic blood pressure before and after allopurinol administration]



[The comparison of mean diastolic blood pressure before and after allopurinol administration]

MPS 14-02 COMPARISON OF DECREASE IN URINARY ALBUMIN EXCRETION ACCORDING TO FIMASARTAN DOSING OF EVENING VERSUS MORNING IN NEVER-TREATED HYPERTENSIVE PATIENTS

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Objective: Previous results indicated that some aldosterone receptor blockers (ARB) at evening administration, as opposed to upon morning, might improve the diurnal/nocturnal ratio of blood pressure and urinary albumin excretion (UAE). The bedtime dosing of fimasartan compared to morning dosing effects on blood pressure and UAE is still uncertain.

Design and method: Data from a 12-week prospective, randomized, open-label, blinded endpoint trial on 97 previously never-treated hypertensive patients, who were assigned to receive fimasartan (60mg/day) as a monotherapy either on morning or evening, were included.

	Awakening	Bedtime	p value
Number of patients	51	46	
Demographics			
Male gender (%)	28 (54.9)	22 (46.8)	0.423
Age	48.1 + 9.6	48.1 + 10.9	0.980
Office bood pressure			
Initial SBP	157.7 + 12.0	156.3 + 13.9	0.586
Initial DBP	97.2 + 21.1	101.4 + 13.4	0.256
12 weeks SBP	135.3 + 15.5	133.9 + 18.1	0.703
12 weeks DBP	85.8 + 11.3	85.0 + 12.6	0.752
24hrs ambulatory blood pressure			
Initial			
Diurnal mean of SBP	146.9 + 11.1	146.5 + 12.6	0.884
Nocturnal mean of SBP	116.0 + 44.4	129.1 + 31.4	0.098
24-hour mean of SBP	143.6 + 10.6	144.3+ 12.5	0.755
Diurnal mean of DBP	95.7 + 11.4	94.6 + 9.8	0.636
Nocturnal mean of DBP	85.6 + 9.9	89.1 + 10.1	0.098
24-hour mean of DBP	93.2 + 9.2	94.4 + 7.9	0.507
12 week			
Diurnal mean of SBP	136.3 + 14.4	140.0 + 11.5	0.456
Nocturnal mean of SBP	119.7 + 11.2	122.1 + 16.9	0.665
24-hour mean of SBP	132.8 + 13.3	136.9 + 12.3	0.399
Diurnal mean of DBP	83.8 + 10.7	82.4 +11.8	0.751
Nocturnal mean of DBP	75.1 + 5.9	79.6 + 11.3	0.208
24-hour mean of DBP	83.0 + 7.9	83.5 + 9.8	0.873
Urine Albumin to creatinine ratio (mg/g)			
Initial	21.9 + 29.2	18.8 + 22.7	0.589
12 week	11.2 + 10.3	14.8 + 27.5	0.478

[Result summary]

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