Indian Journal of Basic and Applied Medical Research; June 2016: Vol.-5, Issue- 3, P. 32-48

**Original article:**

**Study on prevalence of hyperuricemia & microalbuminuria among pre-hypertensives and their relation**

**Avijit Saha1, Amlan Kantibiswas 2**

1 Assistant Professor, Department of General Medicine,Malda Medical Collage &Hospital,West Bengal, India.

2R.M.O. cum clinical Tutor, Department of General Medicine,Malda Medical Collage & Hospital, West Bengal, India.

**Corresponding author:** Avijit Saha

**Abstract
Introduction:** Hyperuricemia is an independent risk factor for kidney dysfunction in pre-hypertensive patients. Various findings suggest that uric acid is an inflammatory factor and may have a role in endothelial dysfunction and act as a mediator of diabetic nephropathy.

**Methodology :** Patients with overt nephropathy as evidenced by positive dipstick test for albumin in urine or spot Albumin Creatinine ratio>300mg/gm of creatinine, conditions leading to Albuminuria like pregnancy,urinary tract infection,congestive cardiac failure,acute stressful illness like fever due to any cause, myeloproliferative or lymphoproliferative disorders or H/O taking medications which may increase the serum uric acid levels like diuretics, ethambutol, pyrazinamide, levodopa, nicotinic acid cyclosporine & alcohol, ischemic changes in ECG and regional wall motion abnormality in echocardiography.

**Results:** Among normtensive male subjects, with normal urinary ACR, 35cases had normal serum uric acid level, while 1 cases had high serum uric acid.Among normotensive female with normal urinary ACR,9 cases had normal s. uric acid while 1 case had high s. uric acid level. Among normotensive male subjects, with microalbuminuric range urinary ACR, no case had normal serum uric acid level, while 2 cases had high serum uric acid.Among normotensive female no cases hadmicroalbumonuric range urinary ACR.

**Conclusion:** This study showed that microalbuminuria was associated with a greater probability of hyperurecaemia in both male and female patients with prehypertension. Majority of prehypertensive subjects were between 41-50years age group, So they are the best target population for screening of hypertension. Nearly half of the prehypertesives were either overweight or obese.