

PREVALENCE AND RISK FACTORS OF MICROALBUMINURIA IN NON-DIABETIC HYPERTENSIVE PATIENTS IN BANGLADESH



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OBJECTIVE

To determine the prevalence of microalbuminuria in a sample of nondiabetic hypertensive patients and to correlate the presence of microalbuminuria with the patients' different clinical profiles.

STUDY DESIGN

A descriptive, observational, cross sectional and non interventional enquiry based on strict respect for the standard general practitioner's medical practice and the physician patient relationship.

Setting: Bangladeshi general practitioners (GPs) who had participated in a preliminary opinion survey on evaluation of renal function in hypertensive patients.

Population: Nondiabetic uncontrolled and controlled hypertensive patients

METHOD

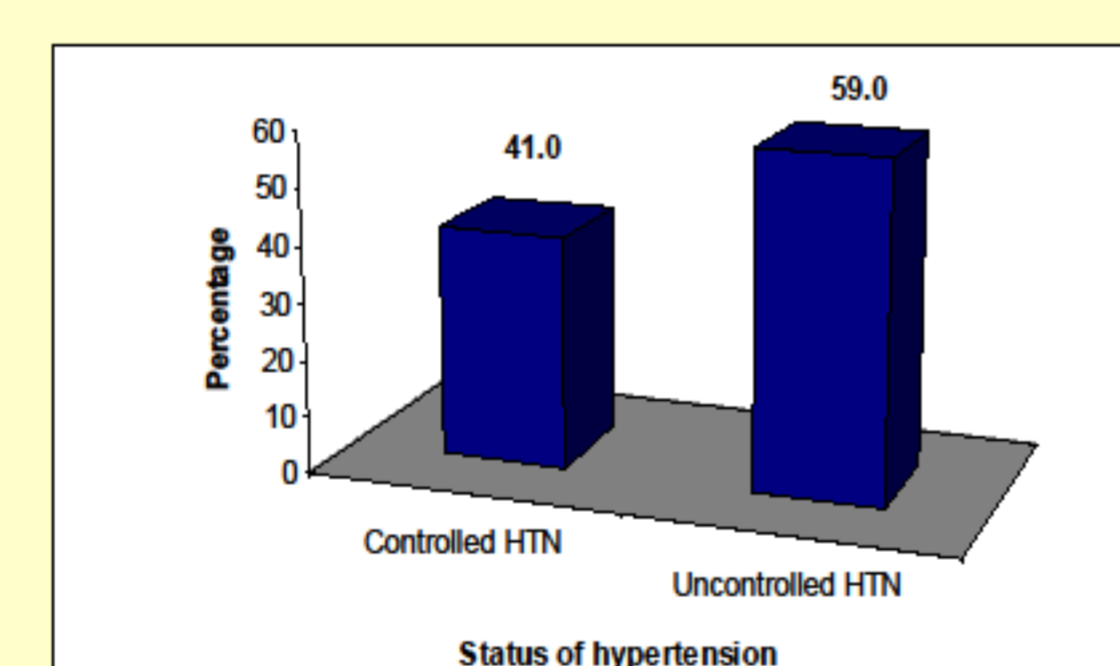
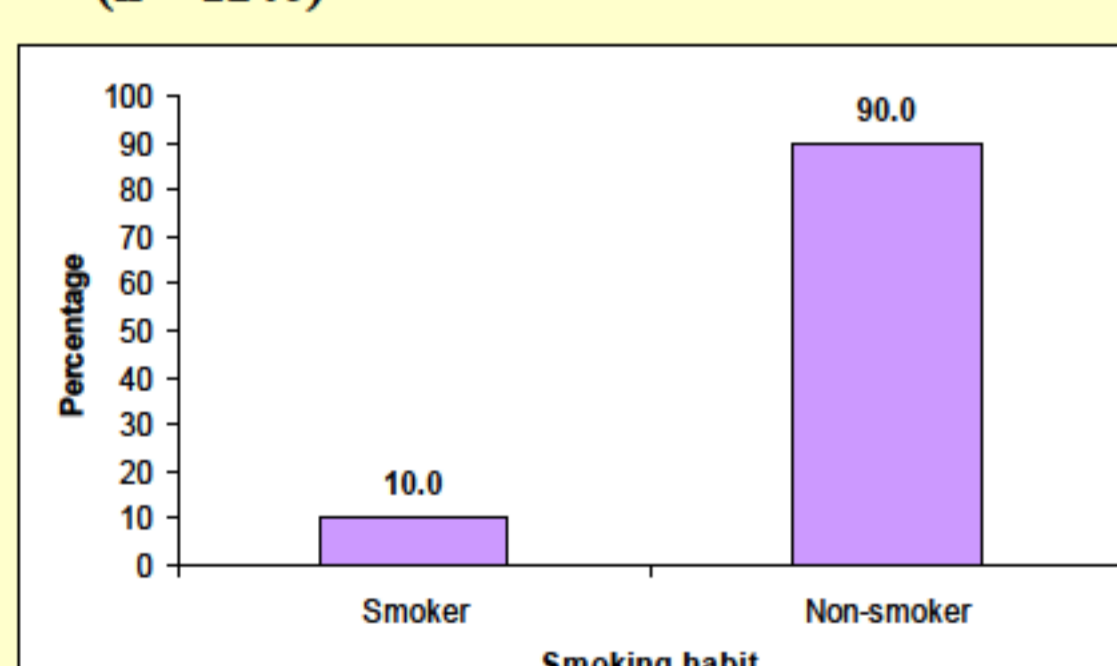
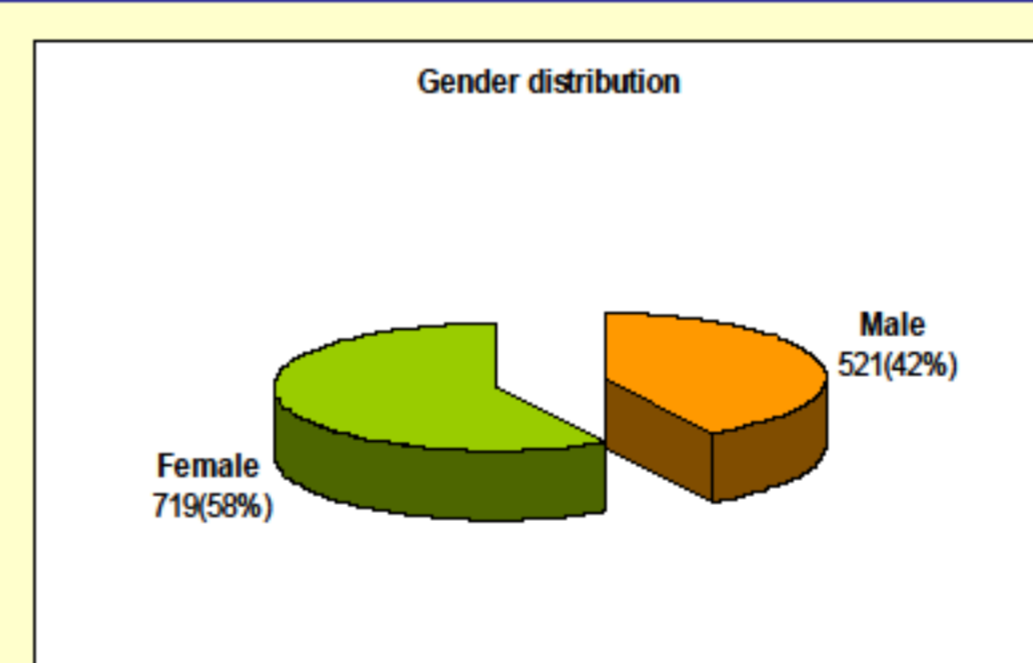
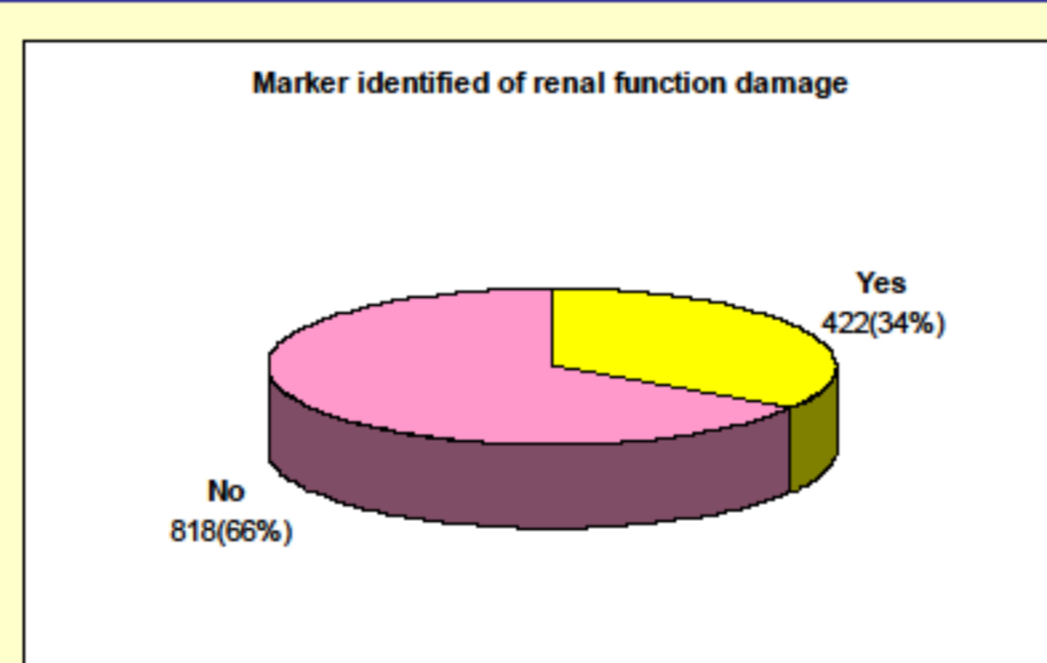
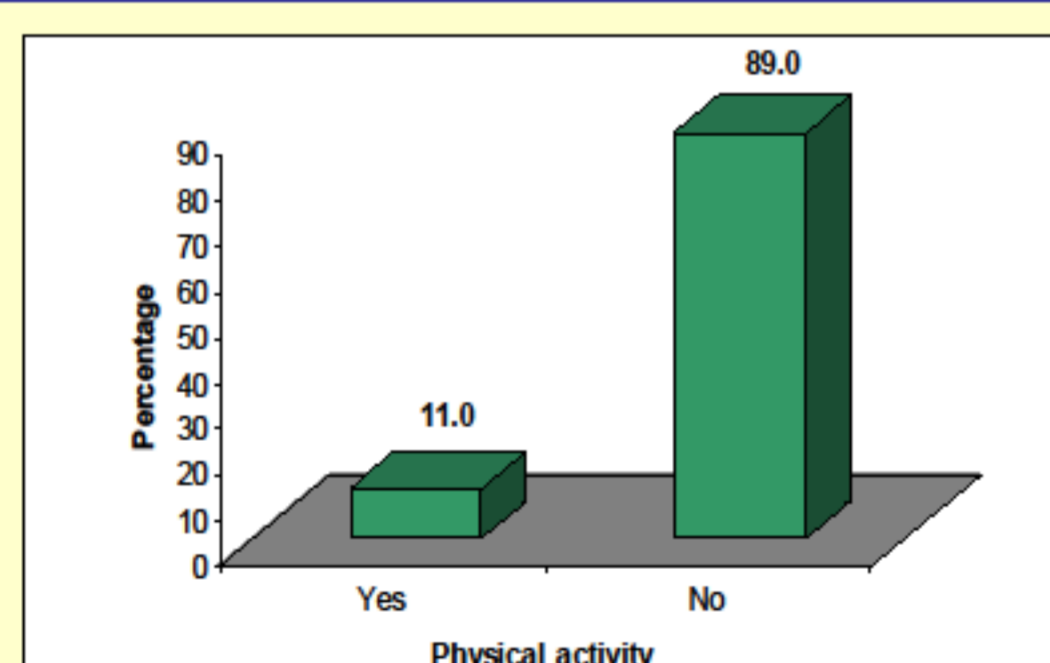
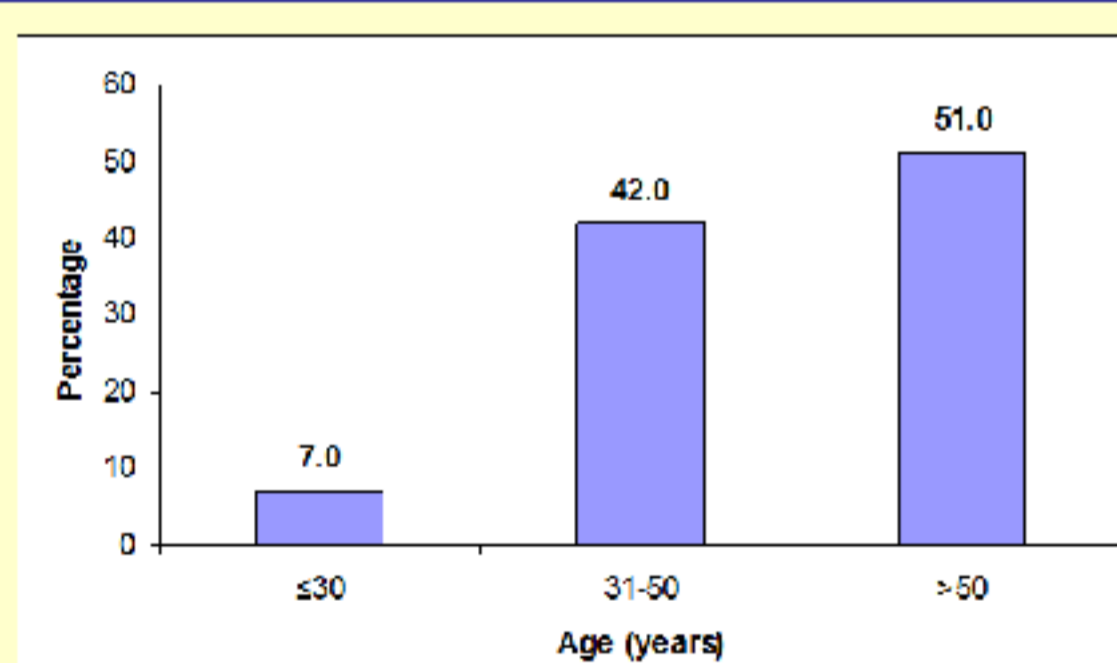
- Data were collected via written questionnaires completed by physicians at inclusion.
- Patients with previously diagnosed diabetes mellitus or fasting blood glucose ≥ 126 mg/dL, impaired kidney function (serum creatinine > 1.4 mg/dL in male, or > 1.2 mg/dL in female) or history associated with false positive albuminuria (fever, menstruation, urinary tract infection and post exercise) were excluded from the study.
- Standard biochemical and microalbuminuria tests were performed by the laboratory chosen by each physician following the laboratory's usual practice.
- A MicralTest [®] to detect microalbuminuria was also performed on a spot morning urine collection.

RESULT

Between May and October 2013, 75 general practitioners recruited 1240 nondiabetic hypertensive patients (58% female) with a mean age of 60.4 \pm 11.3 years; 11% of them were physically active and 10% were smokers.

Almost all the patients ($> 95\%$) were under antihypertensive medication; 44% were also taking statins and 19% aspirin. Of the 1240 subjects, 57% and 41% had uncontrolled and controlled hypertension respectively, and 34% had markers of renal function damage such as proteinuria, hematuria, microalbuminuria or albuminuria.

GRAPHS



CONCLUSION

This study confirmed that microalbuminuria is a powerful discriminator of high cardiovascular risk, and is associated with higher BP values and higher prevalence of LVH, ventricular arrhythmias and cerebrovascular disease in nondiabetic hypertensive patients.

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TABLES

Prevalence of albuminuria

Urine albumin	Frequency	Percentage
Normo-albuminuria	1037	83.6
Micro-albuminuria	139	11.2
Macro-albuminuria	64	4.4

Distribution of patients by medication used

Drugs	Frequency	Percentage
Statins	529	44
Aspirin	229	19
others	445	37

Distribution of participants by Occupation (n = 1240)

Occupation	Frequency	Percentage
Housewife	428	38.9
Day labor	188	15.2
Farmer	162	13.1
Business	150	12.1
Service	137	11.0
Student	73	5.8
Rickshaw puller	36	2.9
Unemployed	12	1.0
Total	1240	100.0

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