30 - 69 years and then gradually decreased in subjects of 70 years and above, and the trend was found to be significant (P < 0.001). Unconventionally, HTN was significantly less prevalent among smokers than nonsmokers whereas long term ex-smokers showed the highest prevalence (P < 0.05). A similar trend was observed among alcoholics but was found to be statistically insignificant. Obese subjects were observed to have significantly (P < 0.01) higher prevalence rate of HTN (45.2%) than overweight (40.2%) and normal (30.2%) subjects. HTN was found to be more prevalent (P < 0.001) among diabetics (51.9%) than non-diabetics (24.3%). This was further substantiated by the significantly (P < 0.001) higher prevalence rates among uncontrolled diabetes (51.7%) and controlled diabetes (49.1%) subjects than non-diabetic subjects (28.2%) as categorized by the HbA1c levels.

The variables are described in **Table 2** after classifying the subjects into four groups based on clinical history of diabetes and/or HTN. HTN was more prevalent in subjects of the older age group, irrespective of the presence or absence of T2D. Both diabetes normotensive and hypertensive subjects were observed to have a significantly higher waist circumference than non-diabetic normotensive subjects. Individuals affected by both of the mentioned disorders had higher BMI and CRE levels than normal controls. As anticipated, both systolic and

diastolic blood pressure was higher among hypertensive groups than normotensive. Fasting glucose, postprandial glucose, glycated haemoglobin and triglyceride levels were significantly higher in the diabetes groups, irrespective of HTN. On the contrary, HDL levels were found to be low in the diabetes subjects. Levels of BUN were found to be significantly higher in diabetes hypertensives when compared to diabetes normotensive. CHO and LDL levels showed no significant difference between the groups.

The influence of HTN on risk for development of T2D was analyzed based on HTN status after adjusting the probable cofounder and has been depicted in Table 3. The crude odds of occurrence of T2D due to HTN was 3.349 (P < 0.0001). Although the odds ratio was reduced after adjusting for the confounders; age, sex, smoking, alcoholism, BMI yet the level of significance was constant. The significance levels were reduced to P < 0.05after the inclusion of FPG, PPG and HbA1c to the previously mentioned models. Though the inclusion of CRE and BUN in the model distorted the significance, but the significance completely disappeared when adjusted for TRIG, CHO, LDL and HDL. When possible confounders were controlled, the odds ratio was found to be 1.45 and was observed to be insignificant. The confounding variables that were found to be significant on inclusion of all variables in the model were Age (OR = 1.053, P =

Table 2. Characteristics of the subjects grouped based on presence or absence of diabetes and hypertension.

Biomarker	Diabetic hypertensive	Diabetic normotensive	Nondiabetic hypertensive	Nondiabetic normotensive
	$Mean \pm S.D$	$Mean \pm S.D$	$Mean \pm S.D$	$Mean \pm S.D$
	N = 153	N = 142	N = 83	N = 258
Age (years)	$59.04 \pm 10.50^{*\#}$	$54.26 \pm 12.49^*$	$56.34 \pm 11.65^*$	48.33 ± 12.81
Waist (cm)	92.83 ± 11.45*^	$89.98 \pm 12.51^*$	88.44 ± 11.18	86.21 ± 11.05
Body mass index (kg/m) ²	$27.37 \pm 4.51^*$	26.04 ± 4.25	26.71 ± 5.18	25.48 ± 4.55
Systolic blood pressure (mmHg)	$152.51 \pm 15.68^{*\#}$	$120.86 \pm 12.97^{\circ}$	$153.88 \pm 19.25^{\ast}$	110.87 ± 12.11
Diastolic blood pressure (mmHg)	$92.48 \pm 12.13^{*\#}$	82.56 ± 10.79^	$96.07 \pm 11.71^*$	80.08 ± 9.93
Fasting glucose (mg/dl)	$142.56 \pm 59.19^* \land$	$145.44 \pm 58.93^* ^{\land}$	90.20 ± 11.17	88.45 ± 9.97
Postprandial glucose (mg/dl)	$228.16 \pm 97.34^* \land$	$228.57 \pm 93.62^* ^{\land}$	115.71 ± 24.45	109.39 ± 22.71
Triglyceride (mg/dl)	184.13 ±111.94*^	$186.65 \pm 105.48^* ^{\land}$	149.05 ± 85.89	143.86 ± 91.58
Cholesterol (mg/dl)	175.18 ± 45.78	174.06 ± 51.09	171.78 ± 49.75	168.58 ± 47.08
High density lipoprotein (mg/dl)	$44.74 \pm 9.95^*$ ^	$47.09 \pm 10.72^* ^{\land}$	50.49 ± 7.95	50.08 ± 8.31
Low density lipoprotein (mg/dl)	101.79 ± 23.63	102.70 ± 22.15	100 ± 21.76	98.05 ± 20.42
Creatinine (mg/dl)	$1.05 \pm 0.49^*$	0.99 ± 0.32	0.98 ± 0.36	0.95 ± 0.32
Blood urea nitrogen (mg/dl)	$10.30 \pm 4.1^{\#}$	9.12 ± 3	9.78 ± 3.24	9.43 ± 3.32
Glycated haemoglobin A1c (%)	$7.45 \pm 2.09^*$ ^	$7.25 \pm 2.13^* \land$	5.11 ± 1.36	4.95 ± 1.06

 $^{^*}P < 0.05$ as compared to nondiabetes normotensive. $^{A\#}P < 0.05$ as compared to diabetes normotensive. P < 0.05 as compared to nondiabetes hypertensive.

Open Access IJCM