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## Study of risk factors of Non Communicable diseases in Telangana Population

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### Abstract

**Background:** Non communicable disease (NCD) include HTN, DM II obesity, tobacco-chewing, Alcoholism have greater risk cause morbidity and mortality. It is great health burden to India and globally.

**Method:** 92 (Ninety two) patients aged between 33 to 60 years were studied. Their habits, history was noted the blood examination – CBC, Hb% RBS Hb<sub>1</sub>AC, lipid profile was ruled out, BP was noted with sphygmomanometer.

**Results:** The clinical manifestations was 25 (27%) were type-2 DM 23 (25%) obesity 18 (19.5%) HTN, 11 (11.9%) tobacco chewers, 15 (16.3%) were alcoholic. The HTN were 18 (19.5%) DM-II were 25 (27.1%) were classified in details. The lipid profile includes total cholesterol, HDL cholesterol S. triglyceride were also classified in every NCD patients.

**Conclusion:** This study will help to create awareness among the people and bad / worst prognosis of NCD i.e., DM-II, alcoholism obesity, HTN, tobacco chewing because these are great challenge to medical fraternity now days.

**Keywords:** NCD, DM-II, HTN sphygmomanometer, Telangana.

## Introduction

NCD and cardio vascular disease are becoming major causes of morbidity and mortality in India and globally <sup>(1)</sup>. Deaths due to NCD 79% are reported globally <sup>(2)</sup> various NCD include risk factors like alcoholism leads to hepatic failure on long term use. Tobacco consumption leads to oral cavity, Tongue and GIT cancer and obesity associated with many metabolic disorders like DM type-2, thyroidism, Cushing syndrome etc <sup>(3)</sup>. Obesity also indication of depression <sup>(4)</sup> or sedentary life leading which are addicted bad habits, DM-II has less viscosity in blood flow hence it leads coronary artery peripheral vascular system impairment leads to coronary artery disease IHD, MI and peripheral vascular disease Thrombo-Anginitis Obliterans (TAO), peripheral neuropathy, vasculitis gangrene etc.

Hence attempt was made to evaluate different NCD patients and their Clinical manifestations, habits, patho-physiological status.

## Material and Method

92 patients aged between 33 to 60 years visiting to MediCiti Institute of Medical Sciences, Ghanpur Village, Medchal Mandal, Medchal Malkajgiri (dist) – 501401, Telangana were studied.

**Inclusive Criteria:** Alcoholic, Tobacco chewers, obese Hypertensive, type II Diabetic Mellitus (DM-II) were selected for study.

**Exclusion Criteria:** Patients with immune-compromised pulmonary TB, Skin disease, Hepatitis were excluded from study.

**Method:** History of every patient was recorded. Blood examination Routine CBC, Hb% RBS, AbA<sub>1</sub>C, lipid profile was done Blood pressure was recorded by

spignomanometre Majority of the patients belonged to middle socio-economic status. Their habit and habitats was noted.

The duration of study was June-2018 to July-2020

**Statistical analysis:** The clinical manifestations, NCD, habits were classified with percentage. The statistical analysis was carried out in SPSS software. The ratio of the male and female was 2:1.

### Observation and Results

**Table-1:** No – Clinical manifestation of non-communicable disease patients – 25 (27.1%) were type-II DM, 23 (25%) were obese, 18 (19.5%) were HTN, 11 (11.9%) were tobacco chewers 15 (16.3%) were alcoholic.

**Table-2:** Study of Blood pressure in Non-communicable disease (NCD) 18 patients – 6 (33.3%) had 130.2 systolic, 79.5 Diastolic, 9 (50%) had 131.1 systolic 80.5 Diastolic, 3 (16.6%) had 129.2 systolic and 81.5 diastolic.

**Table-3:** Study of Blood glucose in NCD patients (25 patients) 6 (24%) had 85.9 to 91.2, 12 (48%) has 92.8 to 97.1, 7 (28%) had 98.2 to 111.2

**Table-4:** Study of lipid profile in NCD patients

- 1) Total cholesterol (mg/dl) – 24 (26%) had 207.2 to 208.2, 32 (34.7%) had 209.3 to 209.9, 36 (39.1%) had 210.3 to 212.2
- 2) HDL cholesterol (mg/dl) – 25 (27.1%) had 39.8 to 41.2, 32 (34.7%) had 42.9 to 44.8, 35 (38%) had 45.8 to 49.2
- 3) S. Triglyceride – 13 (14.1%) had 95.2 to 99.2, 34 (36.9%) had 114.9 to 120.2, 45 (48.9%) had 136.5 to 148

## Discussion

The present study of risk factors of NCD in Telangana population type-II DM, 23 (25%) obesity, 18 (19.5%) HTN, 11 (11.9%) tobacco chewer, 15 (16.3%) alcoholic (Table-1), study of B P had 6 (33.3%) had 130.2 systolic, 79.5 diastolic, 9 (50%) had 131.1 systolic and 80.5 diastolic, 3 (16.6%) had 129.2 systolic and 81.5 diastolic (Table-2). The of Blood glucose 6 had (24%) had 85.9 to 91.2, 12 had (48%) had 92.8 to 97.1, 7 had 98.2 to 111.2 (Table-3) lipid profile state was (1) Total cholesterol – 24 (26%) had 207.2 to 208.2, 32 (34.7%) had 209.3 to 209.9, 36 (39.1%) had 210.3 to 212.2 (2) HDL cholesterol status was 25 (27.1%) had 39.8 to 41.2, 32 (34.7%) had 42.9 to 44.8, 35 (38%) had 45.8 to 49.2 (3) S. triglyceride – 13 (14%) had 95.2 to 99.2, 34 (36.9%) had 114.9 to 120.2, 45 (48.9%) had 136.5 to 148 (Table-4). These findings are more or less in agreement with previous studies <sup>(5)(6)(7)</sup>.

Prevalence of all NCD risk factors increase with age physical inactivity is associated with obesity HTN, DM type-II and dyslipidemia tobacco chewing causes laceration to upper GIT and carcinoma as well. Alcohol intake is associated with greater odds of overweight abdominal obesity and hyper triglyceridemia moreover high blood pressure <sup>(8)</sup>. Diabetic mellitus type-II (D.M type-II) is universally labelled as silent killer because its victim is cardio-vascular system Hyper glycaemia reduces the viscosity of blood flow and end arteries are more prone to get blocked causing IHD MI, retinopathy which leads to mortality and morbidity of the NCD patients <sup>(9)</sup> and patients loose immunity and expose to multiple disorders of the body system. Adiposity has greater biochemical risk dyslipidemia HTN or type-II DM <sup>(10)</sup>. Obese patients having type-II DM have parasthesia or hyperthermia insomnia which later on results in depression dementia and anxiety.

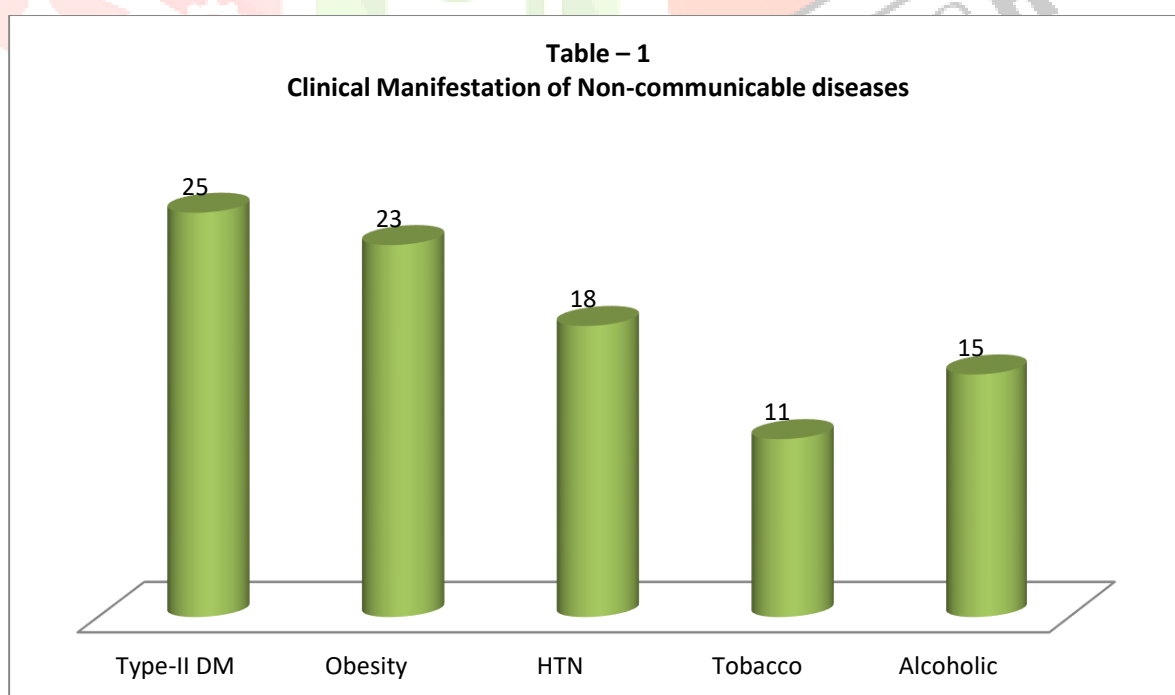
## Summary and Conclusion

The present study of risk factors of NCD includes type-II DM, HTN, alcohol; HTN A large scale awareness programme is required to educate people of different socio-economic status suffering from NCD. Moreover state and central government must ensure the strict legislation to ban tobacco, alcohol. The pathetic part is government gets highest revenue from alcohol (excise) department and products of tobacco.

**Table – 1**

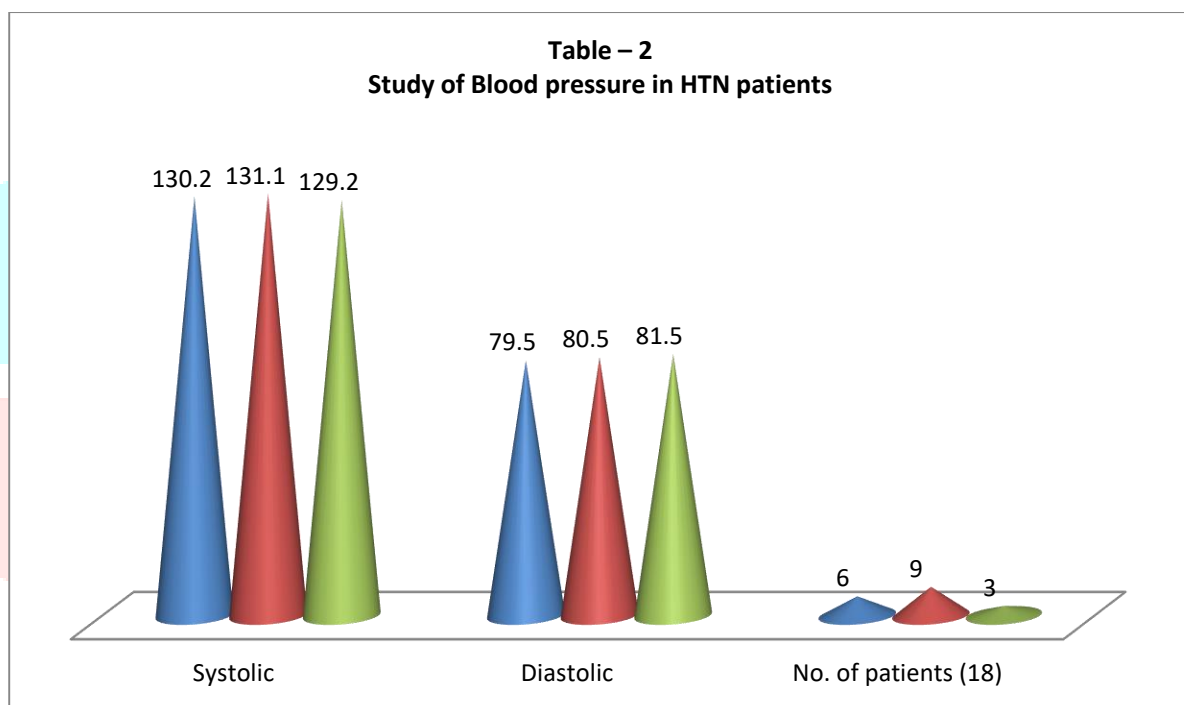
### Clinical Manifestation of Non-communicable diseases

Sl. No	Clinical Manifestations	No. of patients (92)	Percentage (%)
1	Type-II DM	25	27 %
2	Obesity	23	25 %
3	HTN	18	19.5 %
4	Tobacco	11	11.9 %
5	Alcoholic	15	16.3 %



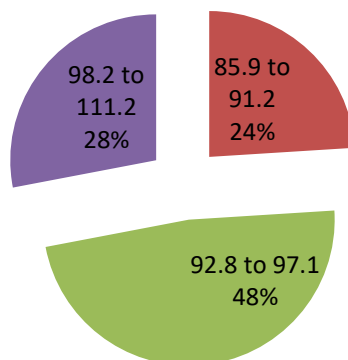
**Table – 2****Study of Blood pressure in HTN patients****(No. of patients: 18)**

Sl. No	Blood pressure (mm Hg)		No. of patients (18)	Percentage (%)
	Systolic	Diastolic		
1	130.2	79.5	6	33.3
2	131.1	80.5	9	50
3	129.2	81.5	3	16.6

**Table – 3****Study of Blood glucose in type-2 DM patients**

Sl No	Blood glucose profile	No. of patients (25)	Percentage (%)
1	85.9 to 91.2	6	24
2	92.8 to 97.1	12	48
3	98.2 to 111.2	7	28

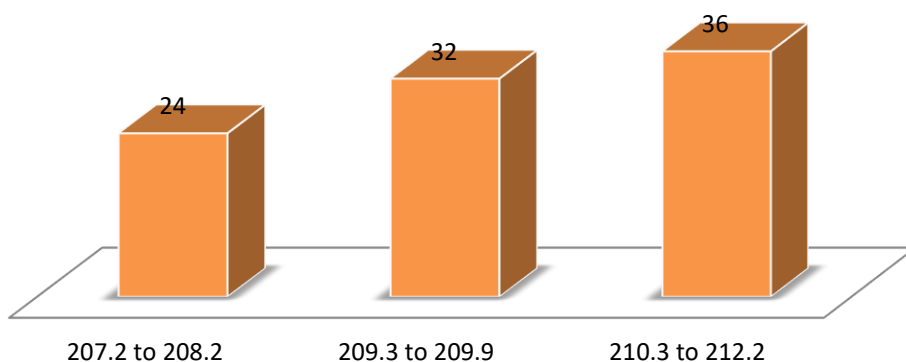
**Table – 3**  
**Study of Blood glucose in type-2 DM patients**



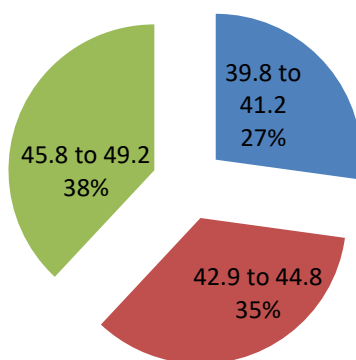
**Table – 4**  
**Study of lipid profile in Non- communicable disease patients**

1	Total Cholesterol (mg/dl)	No. of patients (92)	Percentage (%)
a	207.2 to 208.2	24	26
b	209.3 to 209.9	32	34.7
c	210.3 to 212.2	36	39.1
2	HDL Cholesterol (mg/dl)	No. of patients (92)	Percentage
a	39.8 to 41.2	25	27.1
b	42.9 to 44.8	32	34.7
c	45.8 to 49.2	35	38
3	S. Triglyceride	No. of patients	Percentage (%)
a	95.2 to 99.2	13	14.1
b	114.9 to 120.2	34	36.9
c	136.5 to 148	45	48.9

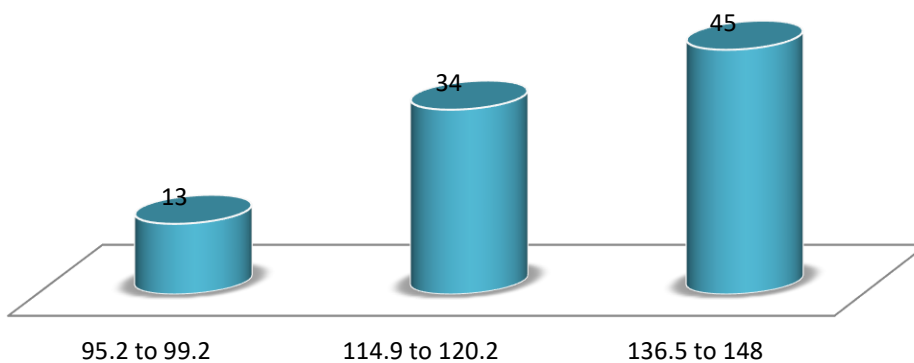
**Table – 4**  
**Study of lipid profile in Non- communicable disease patients (Total Cholesterol)**



**Table – 4**  
**Study of lipid profile in Non- communicable disease patients (HDL Cholesterol)**



**Table – 4**  
**Study of lipid profile in Non- communicable disease patients (S. Triglyceride)**





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