

CLINICAL PROFILE AND COMMODITIES IN OBESE PATIENT

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Introduction:

Although the terms overweight and obesity are often used interchangeably, overweight refers to an excess of body weight compared with height; obesity refers to an excess of body fat in the form of adipose tissue(adiposity). The study discusses CLINICAL PROFILE AND COMMODITIES IN OBESE PATIENT in our setup in Ahmedabad in one urban hospital.

AIMS:

1. To study clinical and laboratory profile of patients with obesity.
2. To asses' comorbidities in obese patient
3. To find the age group and gender in which it is common.

Material and Methods:

A cross sectional study was conducted in L G Hospital Maninagar Ahmedabad in January to march 2019. Study included both outdoor and indoor patients with BMI ≥ 30 . In our study, total 200 patients were analysed for comorbidities. BMI was calculated using the expression = Weight (kilograms)/Height² (meters). The cut off point for calculation of overweight/preobesity taken was ≥ 25 kg/m² and for obesity was ≥ 30 kg/m² as per the WHO 2000 guidelines. The blood pressure was recorded as per standard protocol and mean of three readings was recorded.

Results:

SBP, DBP, TSH and RBS were significantly elevated in obese persons. It may be concluded that a fairly high prevalence of obesity in Ahmedabad area & associated comorbidities is also more prevalent related to this. Increase in body weight may also be due to change in life style factors like fat rich food, more usage of alcohol & smoking, increased energy intake and low energy output due to less involvement of in physical activity.

Discussion and CONCLUSION:

The result shows higher trends of hypertension, DM2, hypothyroidism and dylipidemia with increase in BMI. Measure regarding reducing BMI reduce new incidence of such non communicable disease.

Keyword: Obese, clinical profile, Commodities in obese patient

INTRODUCTION

In the past few decades, the issue of overweight and obesity has become a serious public health concern throughout the world. In India, 5% of the population is obese. Obesity is not an immediately fatal disease by itself, but is a risk factor for wide range of serious non-communicable diseases in Indian population. Obesity is most widely measured in terms of body mass index (BMI). According to the WHO the desirable BMI cut-offs is considered to be between 18.5 and 24.9 kg/m². A BMI of 25–29.9 kg/m² is considered as overweight and ≥ 30 kg/m² as obese. Although the terms overweight and obesity are often used interchangeably, overweight refers to an excess of body weight compared with height; obesity refers to an excess of body fat in the form of adipose tissue(adiposity).

Classification	BMI (kg/m ²)	Risk of comorbidities
Underweight	<18.5	Low (but risk of other clinical problems increased)
Normal range	18.5–24.9	Average
Overweight (preobese)	25.0–29.9	Mildly increased
Obese	≥30.0	
Class I	30.0–34.9	Moderate
Class II	35.0–39.9	Severe
Class III	≥40.0	Very severe

Diabetes mellitus (DM) is a chronic progressive metabolic disorder characterized by hyperglycemia mainly due to absolute (Type 1 DM) or relative (Type 2 DM) deficiency of insulin hormone. The needs of diabetic patients are not only limited to adequate glycaemia control but also correspond with preventing complications; disability limitation and rehabilitation. Throughout the regions of the world, the burden of hypertension (HTN) varies remarkably and is a serious public health problem in both developed and developing countries. Both systolic and diastolic HTN are important predisposing factors of cardiovascular disease (CVD), chronic kidney disease and stroke. BMI is directly and independently associated with morbidity and mortality in HTN and type 2 DM patients. If the relationship between obesity and the risk for HTN and diabetes is not assessed early, it might lead to micro and macro vascular complications. The association of BMI with HTN and diabetes has long been the subject of epidemiological research, but it has not been sufficiently explored in rural population. Overweight/obesity is an important modifiable risk factor for cardiovascular disease (CVD) and other chronic diseases. Excess weight has been shown to be associated with increased prevalence of type 2 diabetes, HTN, dyslipidemia, metabolic syndrome (MetS) and certain cancers; while weight loss dramatically reduces these obesity-related diseases. these diseases have become the main cause of death worldwide. The aim of the study was to examine the association between obesity and its comorbidities like diabetes, HTN Dyslipidemia and hypothyroidism.

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Material and Methods:

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Inclusion Criteria:

1. Patient who gives consent.

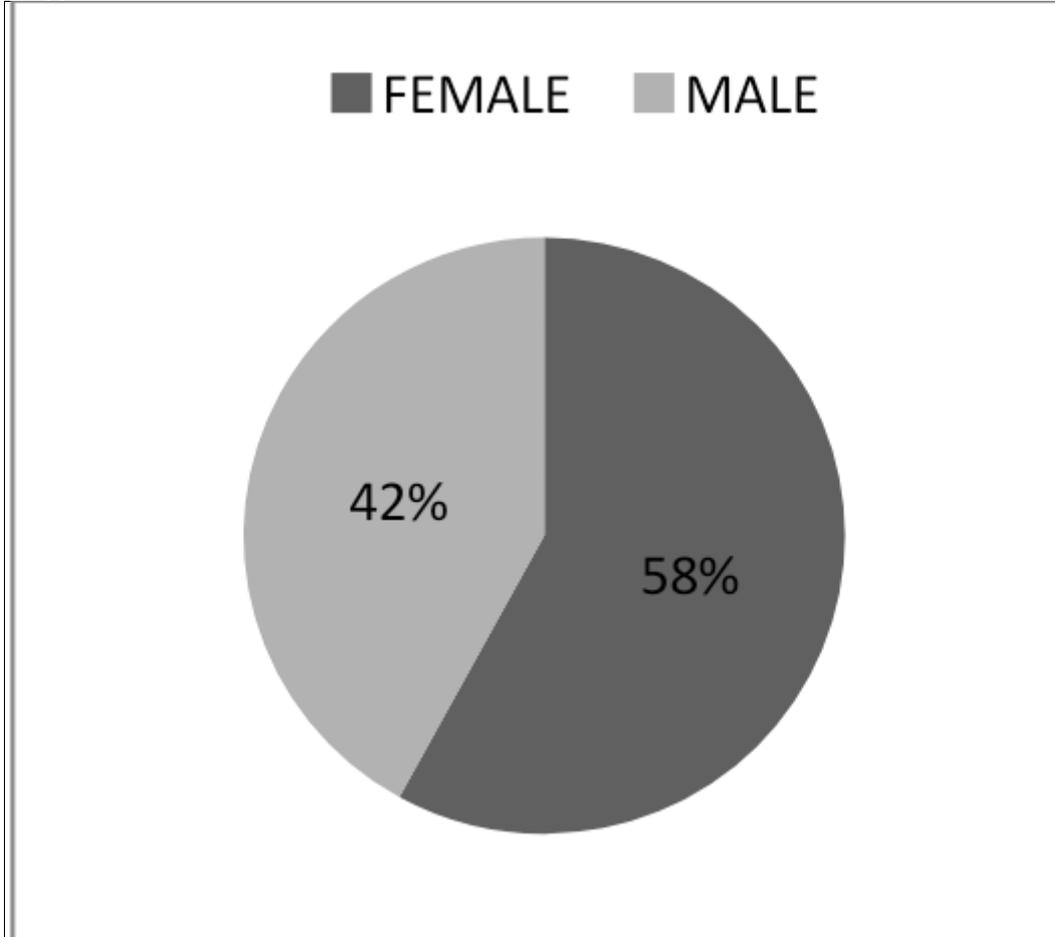
2. Patients with age 18 year or more.
- 3) Patient with BMI (equal or more than 30.0 kg/m²).

Exclusion Criteria:

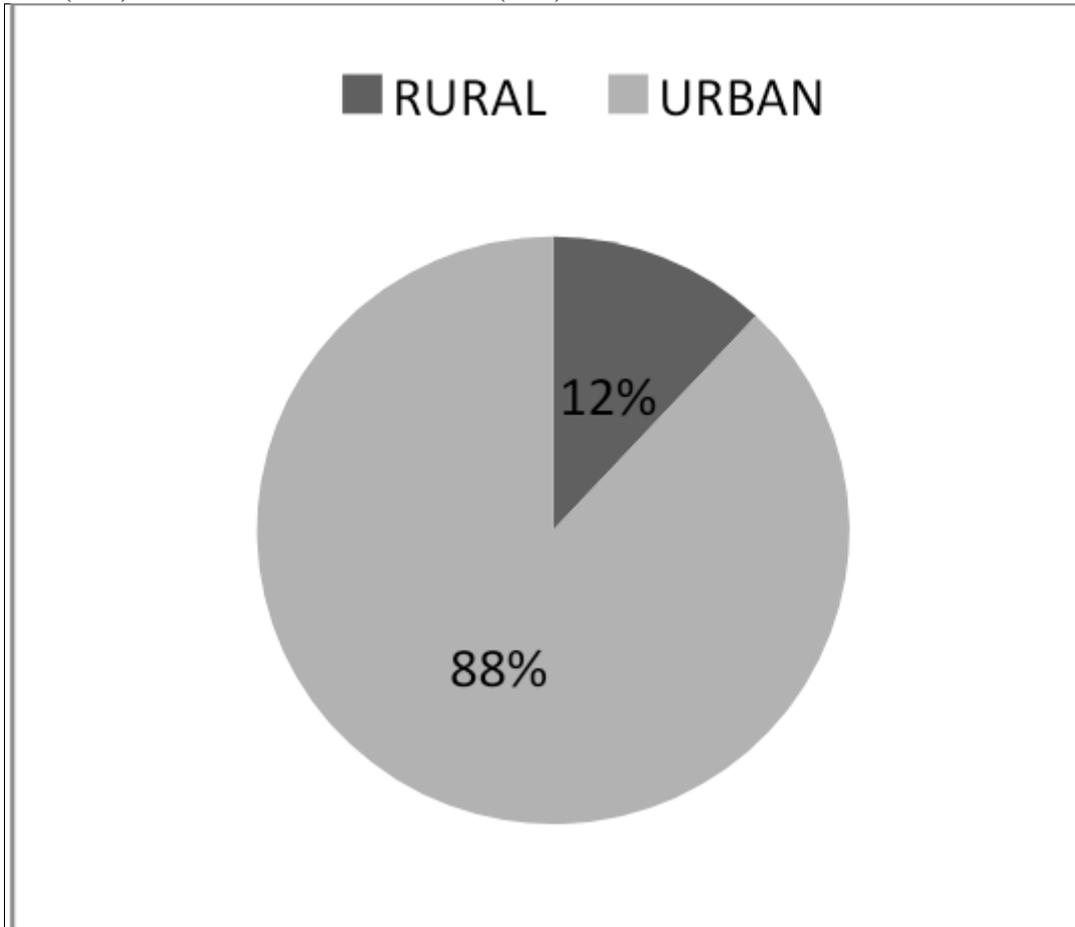
1. Patient younger than 18 years.

RESULTS:

All obese participants divided into 3 groups according to BMI. Obesity was found predominant among female (58%) then male (42%). Similarly, obesity is more common in urban area (84%) then rural area (16%) and more in upper socioeconomic



class (88%) then lower socioeconomic class (12%)



BMI	FEMALE (116)	MALE (84)
30-34.9	84(72.41%)	48(57.14%)
35-39.9	20(17.24%)	24(28.57%)
>40	12(10.34%)	12(14.28%)

In this study, hypertension is more prevalent in obese persons. Among 116 females, 98 females (84.48%) are hypertensive & 68 male (80.95%) out of 84 males are hypertensive. Prevalence of DM2 in male is 58(69.04%) out of 84 and among female 90(77.58%) out of 116. In study, hypothyroidism is more prevalent in female. 62 females (53.44%) out of 116 are having hypothyroidism. And among male prevalence is 33.33%. 84 females (72.41%) have dyslipidemia and 56 (66.67%) males out of 84 had dyslipidemia.

DISEASE	FEMALE 116 (58%)	MALE 84(42%)
HYPERTENSION	98(84.48%)	68(80.95%)

DM2	90(77.58%)	58(69.04%)
DYSLIPIDEMIA	84(72.41%)	56(66.67%)
HYPOTHYROIDISM	62(53.44%)	28(33.33%)

DISSOLUTION:

In our study, obesity is more common in urban area than rural area most probably due to change in food habits, sedentary life style & disturbed sleep pattern. Female obese population was more predominate over male. In our study obese population was more prone to hypertension than normal weight persons. The percentage of diabetic population was more in diabetic patient and

The result shows higher trends of hypertension, DM2, hypothyroidism and dylipidemia with increase in BMI. Measure regarding reducing BMI reduce new incidence of such non communicable disease. increase with increase in BMI. Hypothyroidism is more prevalent in obese female than obese male in our study. Similarly, Dislipidemia is third most common comorbidities with obese persons in our study.

Thus, SBP, DBP, TSH and RBS were significantly elevated in obese persons. It may be concluded that a fairly high prevalence of obesity in Ahmedabad area & associated comorbidities is also more prevalent related to this. Increase in body weight may also be due to change in life style factors like fat rich food, more usage of alcohol & smoking, increased energy intake and low energy output due to less involvement of in physical activity.

CONCLUSION:

The result shows higher trends of hypertension, DM2, hypothyroidism and dylipidemia with increase in BMI. Measure regarding reducing BMI reduce new incidence of such non communicable disease.

REFERANCES:

1. Gothankar JS. Prevalence of obesity and its associated comorbidities amongst adults. Natl J Community Med. 2011;2(2):221-4.
2. Brown CD, Higgins M, Donato KA, Rohde F, Garrison R, Obarzanek E, et al. Body Mass Index and the Prevalence of Hypertension and Dyslipidemia. *Obes Res.* 2000; 8(9): 605–19. <http://dx.doi.org/10.1038/oby.2000.79>; PMID: 11225709.
3. Low S, Chin MC, Ma S, Heng DM, Deurenberg Y. Rationale for Redefining Obesity in Asians. *Ann Acad Med Singap.* 2009; 38(1):66–74. PMID: 19221673
4. Michael JF. Diabetes Treatment, Part 1: Diet and Exercise. *Clin Diabetes.* 2007;25(3):105-9.
5. Youssef MK, Bharati V M, Sairam KR, Vidya NA, Alan FA, Anil C, et al. Burden and predictors of hypertension in India: results of SEEK (Screening and Early Evaluation of Kidney Disease) study. *BMC Nephrol.* 2014;15(6):42. <http://dx.doi.org/10.1186/1471-2369-15-42>; PMID: 24602391; PMID: PMC4015417.
6. Pi-Sunyer FX. Medical hazards of obesity. *Ann Intern Med.* 1993; 119:655-60. http://dx.doi.org/10.7326/0003-4819-119-7_part_2-199310011-00006; PMID: 8363192
7. Jayasingh CM, Christina AS. Prevalence of overweight and obesity and its association with hypertension and diabetes: a study among manakkarambai population of thanjavur district. *Int J Med Sci Public Health.* 2013;2(3):618-21. <http://dx.doi.org/10.5455/ijmsph.2013.200420132>.
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