OBESITY AND LIFESTYLE DISEASES-A COMMUNITY BASED STUDY IN ADULT PUNJABI POPULATION

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ABSTRACT:

Research Question : is there any association between obesity and lifestyle diseases.

Study Design : community based, cross-sectional.

Setting : Field practice areas of urban health centre (UHC) and rural health centre (RHC) of Deptt. of Community Medicine, DMC&H, Ludhiana.

Participants : 541 ethnic Punjabi adults aged 20 years and above.

Statistical Analysis : Pearson chi square test, odds ratio, 95% confidence intervals.

Results : Prevalence of hypertension and diabetes was almost 3 times more in obese than non obese. Also, preponderance of coronary artery disease was slightly more in obese (3.8%) than non obese (3.3%).

Introduction :

Among the various morbid conditions which are continuously crippling the mankind, obesity is increasing at an alarming rate in the affluent nations and in recent years in developing countries as well. The underlying cause is the undesirable positive energy balance. Obesity is related to a number of non communicable diseases like coronary artery disease (CAD),hypertension (HT), diabetes mellitus (DM) etc. Since, health consequences of obesity are serious; it should be prevented through the best of efforts.

Material and Methods :

A community based, cross-sectional study conducted in the field practice areas of UHC and RHC of Deptt. of Community Medicine, DMC&H, Ludhiana.

The study included a total sample of 541 subjects. Out of these, 207 subjects were selected from rural area and rest 334 was from urban background. Systematic random sampling was done and adults aged 20 years and above were considered for the study.

Body mass index (BMI) was used for classification of obesity and subjects having BMI ≥ 30 were considered obese. A standardized weighing machine was used for measurement of weight and a flexible, non stretchable measuring tape for measurement of height. Diagnosis of various lifestyle diseases was made on the basis of clinical examination and investigation reports available with the subjects.

Observation :

Table - 1
Prevalence of hypertension (HT) in relation to obesity (BMI>30)

Status of Obesity	N	Number of Cases (HT)	%
Non obese	461	59	12.8
Obese	80	27	33.8
Total	541	86	15.9

P<0.0005   OR-3.471, 95% CI - 2.027-5.944

Table - 2
Prevalence of diabetes in relation to obesity (BMI>30)

Status of Obesity	N	Number of Cases (HT)	%
Non obese	461	20	4.3
Obese	80	10	12.5
Total	541	30	5.5

P<0.0004   OR-3.150, 95% CI - 1.416-7.010

Table - 3
Prevalence of coronary artery disease (CAD) in relation to obesity (BMI>30)

Status of Obesity	N	Number of Cases (HT)	%
Non obese	461	15	3.3
Obese	80	3	3.8
Total	541	18	3.3

P=1.00   OR-1.158, 95% CI - 0.328-4.096

Results and Discussion :

Prevalence of HT and diabetes was almost 3 times more in obese (33.8%, 12.5%) as compared to non obese (12.8%, 4.3%). it was in agreement with the studies by Gopinath et al (1) and Swami et al (2). also, CAD was slightly more prevalent among obese (3..8%) than non obese (3.3%). Similar findings are obeserved in studies by Gopinat et al (1) and Goel (3).

Conclusion and Recommendations :

From the above study it is concluded that there is an association between obesity and risk of getting lifestyle diseases. Promotion of healthy diets and improved opportunities for physical activity are needed for prevention of obesity.

Bibliography :

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