ORIGINAL ARTICLE

Frequency of Acanthosis Nigricans in Obese and Non-Obese patients

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ABSTRACT

Aim: To determine the frequency of acanthosis nigricans in Obese and non-obese patients.
Study design: Observational descriptive study
Place of study: Study was conducted in the Department of Dermatology, Mayo hospital, Lahore.
Duration of study: 6 months and Data were collected from the 21st April 2009 to October 2009.
Methods: Out of 600 patients 300 Obese and 300 non-obese patients were selected for this study. Detailed history was taken and thorough clinical examination and relevant investigations were performed.
Results: In obese patients the mean age of patients was 37.4±13.0 standard deviation. In non-obese patients the mean age was 30.9±15.6 of standard deviation. In obese group the most common patients were females 161(53.7%) as compared to males 139(46.3%). In non-obese patients the most common males 193(64.3%) followed by females 107(35.7%).
Conclusion: Frequency of Acanthosis Nigricans is more common in obese patients as compared to non-obese patients.

Keywords: Acamtjpsos mogrocams, obese, non-obese

INTRODUCTION

Acanthosis Nigricans is hyperpigmented, velvety connective tissue thickening simply determined on sure components of the body, together with the axillae, sides of the neck, groin, hinge joint and hinge joint surfaces, point space, and, in additional severe cases, even meet the entire body and tissue layer surface. Within the literature, disease of the skin is reported to be closely related to fatness as a manifestation of connective tissue hormone resistance[1]. Disease of the skin was originally planned by Unna, but the first case was delineated by Pollitzer and Janovsky in 1891[2] it's normally seen on the neck, within the axilla and groin. It might even be found on the elbow, knee and knuckles[3,4,5]. Disease of the skin is way a lot of common in folks with darker skin pigmentation[6]. The association of disease of the skin (AN) with several diseases like malignant tumors, obesity, hormone resistance and polygenic disorder, hyperandrogenism, and different endocrinopathies has received the eye of the many investigators for the past one hundred years[7-19] disease of the skin most typically happens in folks that area unit overweight. Management of weight through exercise and healthy uptake will create the thickened skin depart and improve your gift and future health. Fatness puts folks at higher risk for top force per unit area, heart attacks Associate in nursing polygenic disorder and may shorten an individual's life expectancy[20] it's taken without any consideration that fatness typically comes before the looks of Associate in Nursing of connective tissue hormone resistance[21]. UN agency defines fatness as abnormal or excessive fat accumulation that will impair health[22]. In most of the Asian countries, prevalence of fatness has inflated several folds since previous few decades[23]. Prevalence in urban Pakistani population has been recorded to be 22-37%[24,25]. With a rising incidence of fatness everywhere the globe, few regional studies are conducted regarding connective tissue manifestations of obesity. Restricted work has been done on this subject in our a part of the planet. This study adds to presently accessible literature from Pakistan so this study planned and aimed to see the frequency of disease of the skin in Obese and non-obese patients.

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MATERIALS AND METHODS

This study was conducted in the Department of Dermatology, Mayo Hospital, Lahore. Data were collected from the 21st April 2009 to October 2009. Sampling technique was Non-probability purposive sampling. Inclusion criteria include Obese and non-obese patients of either sex including all ages can participate in the study after getting informed consent and those who refused to participate in the study were excluded from the study Exclusion criteria include any type of topical therapy taken during the

last fifteen days and any systemic treatment during the last one month. Three hundred obese and three hundred non-obese patients were selected from Department of Dermatology. Mayo Hospital Lahore. Prior informed written consent was taken from all the patients. Patient's weight and height was measured with the help of weighing machine and measuring tape respectively and BMI was measured using formula: Weight in kilograms / square of height in meters. Proforma was used for recording the findings on history and examination including height and weight of patients. Data was stratified for age to address effect modifiers. All the calculations were done on SPSS version 20 and analyzed accordingly.

RESULTS

Out of 600 patients 332 males and 268 females were selected for the study showed in Table 2. In Obese group the most common patients were females 161(53.7%) as compared to males 139(46.3%). In non-obese patients the most common males 193(64.3%) followed by females 107(35.7%). Table 1 showed that in obese patients the most common age group was 31-40yrs,99(33%) and second most common age group was 21-30yrs, 72(24%) and third common age group was 41-50yrs 53(17.7%) was found. In non-obese patients the most common age group was 21-30yrs,94(31.3%) and the second most common age group was 11-20yrs, 78(26%) and third common age group 31-40yrs, 43(14.3%) were found. In obese patients the mean age of patients was 37.4±13.0 standard deviation while in non-obese patients the mean age was 30.9±15.6 of standard deviation.

Table 1: Age wise distribution of obese and non obese patients

Age (years)	Obese patients	Non obese patients
1-10	0	12(4%)
11-20	32(10.7%)	78(26%)
21-30	72(24%)	94(31.3%)
31-40	99(33%)	43(14.3%)
41-50	53(17.7%)	38(12.7%)
51-60	33(11%)	23(7.7%)
61-70	7(2.3%)	10(3.3%)
71-80	4(1.3%)	2(0.7%)

Table 2: Gender variation in obese and non-obese group

Gender	Obese patients	Non obese patients
Male	139(46.3%)	193(64.3%)
Female	161(53.7%)	107(35.7%)
Total	300(100%)	300(100%)

Table 3: Frequency of Acanthosis Nigricans in obese and non-obese group

Acanthosis Nigricans	Obese patients	Non obese patients
Yes	199(66.3%)	41(13.7%)
No	101(33.7%)	259(86.3%)

Table 3 showed that Acanthosis Nigricans was the most common disorder seen in obese group 199(66.3%) as compared to 41(13.7%) non-obese group. Remaining obese patients 101(33.7%) and non-obese patients 259(86.3%) did not found any finding.

DISCUSSION

The prevalence of fatness, that is outlined as a body mass index (body weight in kilograms divided by sq. of height in meters) of thirty kg/m2 or bigger has considerably exaggerated within the western world over the past few decades(26) in line with a survey by WHO the worldwide prevalence of fatness (BMI >30kg/m^2) was eighty seven in 1999-2000(27). Pakistan demographic survey, conducted in 2002 showed that twenty eight.6% of young adult population in our country is rotund.(28)In our study the mean age of the patients in rotund cluster was 37.4±13.0 years and in non rotund cluster was thirty.9±15.6 years. within the rotund cluster we have a tendency to had forty six. 3% male patients and fifty three. Seven percent feminine patients whereas in non rotund cluster, there have been sixty four.3 man patients and three5.7% feminine patients. associate is reported to be closely related to fatness[29]. Additionally, endocrinopathies, malignancy (most oft viscus malignant neoplastic disease in adults), genetic syndromes, and also the use of medication can also cause the event of associate [30.31,32,33,34.] it's varied causes. Its frequency in fatness is exaggerated owing to hyperinsulinism and internal secretion resistance[35]. Associate was found in sixty six.3% rotund as compared to thirteen. Seven percent non rotund patients in our study. this is often comparable the study done by khalifa et al[36] who disbursed a prospective study within which he analyzed information of seventy five patients. associate was seen in 66% rotund and a pair of.85% non rotund patients. They discovered that frequency of associate will increase with the rise of BMI and regarded it an indication of impaired aldohexose metabolism owing to internal secretion resistance. Skin care in rotund patients demands explicit attention as a result of morbidity, associated systemic diseases and susceptibleness to infections[37,38].

CONCLUSION

It was concluded that the frequency of Acanthosis Nigricans is more common in obese patients as compared to non-obese patients.

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