ABSTRACT

Aim: To determine the prevalence of chronic venous insufficiency in Obese and non-obese patients.
Study design: Observational descriptive study
Place of study: Study was organized in the department of dermatology Unit II, Mayo hospital, Lahore.
Duration of study: Six months and study 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: Chronic Venous Insufficiency was the most commonly seen in obese group 58(19.3%) as compared to 10(3.3%) non-obese group.
Conclusion: Prevalence of chronic venous insufficiency is more common in obese patients as compared to non-obese patients.
Keywords: Obese patients, non-obese, chronic venous insufficiency

INTRODUCTION

The word chronic venous insufficiency (CVI) illustrates a condition that affects the venous system of the lower extremities with venous high blood pressure inflicting numerous pathologies together with pain, swelling, edema, skin changes, and ulcers. Although the term CVI is typically accustomed to exclude uncomplicated varicose veins, varicose veins have incompetent valves with accumulated venous pressure resulting in progressive dilation and tortuosity. Several risk factors have been related to the development of venous insufficiency like blubber, age, lifestyle, type of work, diet, hormone use, pregnancy, family history and others. Obesity has been increasing in epidemic proportions in each adults and kids. In mature age person, overweight is elucidated as a body mass index (BMI) twenty five to twenty nine.9 kg/m2 and blubber as BMI ≥30 kg/m2. Obesity is a major public pathological state altogether industrialized and developed countries. In these countries, it is approximated that 1/3 of the populace has severe obesity, that requires treatment so as to stop the development of diseases and complications like arterial high blood pressure (AH), diabetes mellitus (DM), respiratory distress, chronic venous diseases with ulceration of the lower limbs, among others. Obesity is associated with a considerable reduction in lifespan. Recent data from the United States recommend that a severe level of blubber (BMI>45) throughout early adulthood (aged 20–30 years) might cut back a man’s lifespan by up to thirteen years and a woman’s by up to eight years. Pakistan stratified ninth out of 188 countries in terms of blubber, according to the worldwide Burden of Disease Study and no country has turned the tide of blubber since 1980. With a rising incidence of fatness all over the globe, few regional studies are conducted concerning connective tissue manifestations of blubber. Restricted work has been done on this subject in our part of the world. This study adds to presently accessible literature from Pakistan therefore this study planned and aimed to see the frequency of malady of the skin in obese and non-obese patients.

MATERIALS AND METHODS

This Study was organized in the department of dermatology Unit II, Mayo hospital, Lahore. Data were collected from the twenty first Gregorian calendar month 2009 to October 2009. Sampling technique was Non-probability purposive sampling. Inclusion criteria include Obese and non-obese patients of either sex together with all ages will participate within the study when obtaining consent and people who refused to participate in the study.
were excluded from the study. Exclusion criteria include any sort of topical medical aid taken throughout the last fifteen days and any general treatment throughout the last one month. Three hundred fat and 300 non-obese patients were chosen from Department of medical specialty. Unit II, Mayo Hospital Lahore. Prior familiar written consent was taken from all the patients. Patient's weight and height was measured with the help of weighing machine and measurement tape appropriately and BMI was measured employing formula: Weight in kilograms/sq. 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 impact modifiers. All the calculations were done on SPSS (statistical package for social sciences) version 20 and analyzed consequently.

RESULTS

Table 1: Age wise distribution of Obese and Non Obese Patients

<table>
<thead>
<tr>
<th>Obese Pts (Years)</th>
<th>No.</th>
<th>Non-Obese Pts (Years)</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>0</td>
<td>1-10</td>
<td>12(4%)</td>
</tr>
<tr>
<td>11-20</td>
<td>32(10.7%)</td>
<td>11-20</td>
<td>78(26%)</td>
</tr>
<tr>
<td>21-30</td>
<td>72(24%)</td>
<td>21-30</td>
<td>94(31.3%)</td>
</tr>
<tr>
<td>31-40</td>
<td>99(33%)</td>
<td>31-40</td>
<td>43(14.3%)</td>
</tr>
<tr>
<td>41-50</td>
<td>53(17.7%)</td>
<td>41-50</td>
<td>38(12.7%)</td>
</tr>
<tr>
<td>51-60</td>
<td>33(11%)</td>
<td>51-60</td>
<td>23(7.7%)</td>
</tr>
<tr>
<td>61-70</td>
<td>7(2.3%)</td>
<td>61-70</td>
<td>10(3.3%)</td>
</tr>
<tr>
<td>71-80</td>
<td>4(1.3%)</td>
<td>71-80</td>
<td>2(0.7%)</td>
</tr>
</tbody>
</table>

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%) 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. In Non-Obese patients the mean age was 30.9±15.6 of standard deviation.

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

<table>
<thead>
<tr>
<th>Gender</th>
<th>Obese group</th>
<th>Non obese group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>139(46.3%)</td>
<td>193(64.3%)</td>
</tr>
<tr>
<td>Female</td>
<td>161(53.7%)</td>
<td>107(35.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>300(100%)</td>
<td>300(100%)</td>
</tr>
</tbody>
</table>

Table 3: Frequency chronic Venous Insufficiency in obese and non-obese group

<table>
<thead>
<tr>
<th>Chronic Venous Insufficiency</th>
<th>Obese group</th>
<th>Non obese group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>58(19.3%)</td>
<td>10(3.3%)</td>
</tr>
<tr>
<td>No</td>
<td>142(47.3%)</td>
<td>290(90.7%)</td>
</tr>
</tbody>
</table>

Table 3 showed that Chronic Venous Insufficiency was the most commonly seen in obese group 58(19.3%) as compared to 10(3.3%) non-obese group. Remaining Obese patients 142(47.3%) and Non-Obese patients 290(90.7%) did not found any finding.

DISCUSSION

Elevated body-mass index was associated with an augmented risk of heart failure, without proof of a threshold. This increased risk was evident in each sexes and was not restricted to persons with extreme obesity. There are many plausible mechanisms for such an allusion. Increased body-mass index is a risk issue for hypertension12 diabetes13,14 and dyslipidemia15 all of which augment the risk of MI16,17 an necessary antecedent of heart disease18,20,21. In addition, hypertension and diabetes mellitus severally increase the danger of heart disease19,20,21,22.

Elevated body-mass index is allied with altered left ventricular remodeling23,24,25,26,27 possibly owing to increased hemodynamic load28,29 neurohormonal activation30 and increased oxidative stress31. Pakistan demographic survey, conducted in 2002 showed that twenty eight.6% of young adult population in our country is rotund26. 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 tend to have an inclination to have forty six.3% male patients and fifty 3.7% female patients whereas in non rotund cluster, there have been sixty four.3 man patients and thirty five.7% female patients. Chronic Venous Insufficiency was the most ordinarily seen in fat cluster 58(19.3%) as compared to ten (3.3%) non-obese cluster. Remaining Obese patients 142(47.3%) and Non-Obese patients 290(90.7%) did not found any finding. In another study of 1614 patients with CVI showed the 28% fat and 14 July were non fat that is comparable with our study32. Since BMI seems to be a lot of in such patients and it might be a conducive issue towards chronic blood vessel insufficiency. The limitation of the present study was restricted solely empirical descriptive style. The better approach would be to follow up patients with CVD to visualize whether or not aggravation of the malady is a lot of pronounced in those that area unit overweight or fat. Another limitation is the indisputable fact that
Doppler ultrasound examination wasn’t performed altogether patients.

CONCLUSION
It is concluded that prevalence of Chronic venous insufficiency is more common in obese patients as compared to non-obese patients.

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