THE RECURRENCE OF HEAVY SKIN INDICATIONS AND THEIR RELATIONSHIP TO THE SEVERITY OF THE DISEASE IN THE PAKISTANI POPULATION

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Abstract:
Objective: Consider the recurrence of heavy skin indications and their relationship to the severity of the disease in the Pakistani population.
Methods: 110 outdoor patients visiting the Lahore General Hospital, Lahore were examined during a period from May 2017 to April 2018. BMI was determined by estimating heaviness in kilograms isolated by square of height in meters. The skin appearance of tall patients with Class I (CI) [BMI >30-35.7 kg/m2] and Class II (CII) [BMI 36-41 kg/m2] disease was recorded.
Results: The mean age was 41.85±8.61 years while the mean BMI was 34.52±3.52 kg/m2. A critical contrast for diabetes mellitus, striae and acanthosis nigricans was observed among the CI and CII clusters (p<0.06). BMI showed a significant positive relationship with diabetes (r=0.283, p=0.006) and rash (r=0.316, p=0.002), while diabetes mellitus appeared with acanthosis nigricans (r=0.375; p=0.001) and skin tags (r=0.219, p=0.028). Rash appeared with miliaria (r=0.211, p=0.037) and varicose vein with xanthomas (r=0.281, p=0.006).
Conclusion: Acanthosis nigricans and rashes are more often manifested by heaviness.
Keywords: Obesity, cutaneous manifestations.

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INTRODUCTION:

Weight is a real problem of general medicine, which is added to the pathogenesis of cardiovascular, musculoskeletal and metabolic problems. Corpulence can be present at any age, but it most often manifests itself in the middle of life. Body fat has been shown to be associated with conditions such as coronary heart illness, DM type-2, hypertension, hyperlipidemia, osteoarthritis, resting disruptive sleep apnea and misery, as well as malignant growth of the chest, endometrium and colon [1]. It has also demonstrated strong relationships with alcohol-free fatty liver disease and gallstones, diverticulitis, infertility, urinary incontinence, malaise, and disabled social collaborations. At the skin level, overweight influences the limiting capacities of the skin, sebaceous organs and sebum preparations, sweat organs, lymph, collagen structure and capacities, miniaturized and large-scale diffusion and subcutaneous fat [2]. Larger cases have greater overlapping skins and perspire more profusely as they are overheated by thick layers of subcutaneous fat, increasing the friction and moisture components [3]. Weight-related skin aspects include lymphedema, acanthosis nigricans, and the effects of hyper androgenesis, skin inflammation, miliaria, intertrigo, plantar hyperkeratosis, skin illnesses, and varicose veins. The World Health Organization (WHO) and the National Institute of Health (NIH) use a weight list (BMI) - a weight-for-height list usually used to group underweight, overweight and heavy cases. BMI is characterized by weight in kilograms divided by the square of height in meters [Kg/m2] [4]. The perimeter of the abdomen, estimated towards the end of the typical termination at the degree of iliac spikes, is another sensitive method for the study of corpulence. Perimeter estimates that show a significant expanded relative risk are over 88 cm for females and over 102 cm for males. This examination was attempted to assess the recurrence of overweight-related skin signs and their relationship to the severity of the condition [5].

METHODOLOGY:

110 outdoor patients visiting the Lahore General Hospital, Lahore were examined during a period from May 2017 to April 2018. BMI was determined by estimating heaviness in kilograms isolated by square of height in meters. After the patient's consent, segment parameters such as age, sex, beat, circulatory pressure (using a mercury sphygmomanometer, taking the normal of the three readings after completely releasing the patient) were recorded. Patients were also asked about their history of diabetes mellitus, hyperlipidemia and hyperuricemia, either at the time of analysis or during treatment. BMI was determined by estimating height in cm and converting it to square meters, weight in kg and using the recipe - kg/m2. Height in centimeters was estimated by asking the patient to stand upright against the divider using the weight-for-height estimating machine. Patients were divided into two groups: class I (CI) [BMI 31-35.8 kg/m2] and class II (CII) [BMI 36-41.2 kg/m2]. Patients were analyzed by a Certified Dermatologist (CDN) for skin signs such as skin composition (weak or reasonable), striae, skin tags, miliaria, acanthosis nigricans, varicose veins, xanthoma and xanthelasma, plantar hyperkeratosis and intertrigo.

RESULTS:

The mean time of patients of gathering CI (n=50) was 41.2±7.55 years while that of gathering CII (n=50) was 42.25±9.33 years (p=0.397). The mean stature demonstrated a non-critical contrast (p=0.123) between bunch CI (169.70±7.80 cm) and gathering CII (172.15±8.97 cm). A comparative pattern was seen when heartbeat rate (p=0.147) and circulatory strain (p=0.183) of the two gatherings were analyzed, be that as it may, distinction was noteworthy as far as weight (89.67±8.40 Kg, 108.64±23.23Kg; p=0.000) and BMI (31.18±0.91, 35.72±0.74; p=0.000) between the gatherings. Table 1 speaks to cutaneous appearances of heftiness. A non-huge more noteworthy rate (OR=0.783; p=0.545) of females was noted in both (CI and CII) gatherings. A non-noteworthy higher rate for hypertension (OR=0.777; p=0.347), hyperuricemia (OR=0.583, p=0.372), hyperlipidemia (OR=0.706, p=0.405), family ancestry of weight (OR=0.911; p=0.829), miliaria (OR=0.599; p=0.260) and plantar hyperkeratosis (OR=0.545; p=0.147) was seen in patients of gathering CI contrasted with those of gathering CII; while dim skin composition (OR=0.592; p= 0.211), varicose veins (OR=2.550; p=0.182) and xanthomas/xanthelasma (OR=1.278; p=0.539) were of non-huge more prominent rate in bunch CII contrasted with patients of gathering CI. Table 2 shows investigation of change between and inside the gatherings. Examination of fluctuation demonstrated a huge contrast for BMI (p=0.000), skin break out (p=0.009), diabetes mellitus (p=0.028), acanthosis nigricans (p=0.002), skin labels (p=0.016), stretch imprints (p=0.044), and circulatory strain (p=0.026), inside and between the gatherings. Notwithstanding, the skin composition (p=0.215), miliaria (p=0.265), xanthoma/xanthelasma (p=0.163), varicose veins (p=0.186) plantar hyperkeratosis (p=0.150) and intertrigo (p=0.334) were seen as non-noteworthy inside and between the gatherings.

DISCUSSION:

Our results are consistent with the various examinations that have demonstrated the relationship of weight to skin manifestations [6]. Among the skin signs, skin tags (53%) dragged by distensile striae (49%) were found to visit more and more (52%) than the various skin indications [7]. These results are consistent with those of Tamega et al. and Boza et al. who indicated a significant association (p<0.06) with diabetes mellitus and dyslipidemia [8]. Our result also indicated a notable distinction (p=0.06) when skin tags were analyzed within and between the two examination groups. Our results showed a significant association (p<0.06) with diabetes mellitus. Acanthosis nigricans was observed in 45% of the selected patients [9]. Other comorbid conditions such as diabetes mellitus showed a significant relationship with acanthosis (p=0.000) and miliaria (p=0.015), but in any case, it also indicated a positive connection with skin tags and distended striae. Critical contrast (p=0.003) was observed for acanthosis within and between clusters [10].

Table 1: Different systemic and cutaneous manifestations of obesity in study population (n=100).

Variable	C1 n= 50 (50%)	CII n= 50 (50%)	OR	P value	CI 95%
Sex					
Male	23 (46.0%)	20 (40%)	0.783	0.545	0.354 – 1.730
Female	27 (54.0%)	30 (60%)			
Skin complexion					
Dark	29 (58.0%)	35 (70%)	0.592	0.211	0.259 – 1.351
Fair	21 (42.0%)	15 (30%)			
Family H/O Obesity					
Yes	35 (70.0%)	34 (68%)	0.911	0.829	0.390 – 2.126
No	15 (30.0%)	16 (32%)			
Hypertension					
Yes	32 (64.0%)	29 (58%)	0.777	0.347	0.347 – 1.738
No	18 (36.0%)	21 (42%)			
Diabetes mellitus					
Yes	21 (42%)	32 (64%)	2.455	0.028	1.097 – 5.494
No	29 (58%)	18 (36%)			
Hyperuricemia					
Yes	08 (16%)	06 (12%)	0.583	0.372	0.177 – 1.925
No	42 (84%)	44 (88%)			
Hyperlipidemia					
Yes	20 (40%)	16 (32%)	0.706	0.405	0.311 – 1.603
No	30 (60%)	34 (68%)			
Acne					
Yes	30 (60%)	14 (28%)	0.259	0.001	0.112 – 0.599
No	20 (40%)	36 (72%)			
Acanthosis nigricans					
Yes	14 (28%)	30 (60%)	3.857	0.001	1.670 – 8.911
No	36 (72%)	20 (40%)			
Striae distensae					
Yes	23 (46%)	33 (66%)	2.279	0.044	1.017 – 5.108
No	27 (54%)	17 (34%)			
Acrochordon (skin tag)					
Yes	20 (40%)	32 (64%)	2.667	0.016	1.188 – 5.985
No	30 (60%)	18 (36%)			
Miliaria					
Yes	25 (50%)	20 (40%)	0.667	0.315	0.302– 1.472
No	25 (50%)	30 (60%)			
Varicose veins					
Yes	03 (06%)	07 (14%)	2.550	0.182	0.620 – 10.492
No	47 (94%)	43 (86%)			

Xanthoma/xanthelasma					
Yes	18 (36%)	21 (42%)	1.287	0.539	0.575 – 2.881
No	32 (64%)	29 (58%)			
Plantar hyperkeratosis					
Yes	19 (38%)	18 (36%)	0.918	0.836	0.407 – 2.067
No	31 (62%)	32 (64%)			
Intertrigo					
Yes	10 (20%)	10 (20%)	1.000	1.000	0.375 – 2.664
No	40 (80%)	40 (80%)			

CONCLUSION:

These results are in association with Phiske10 and Al Muturi who showed statistically significant association (p<0.06) of acanthosis nigricans with obesity. A positive correlation was also noticed with skin tag, and stretch marks.

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