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DERMA TODAY

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Dear Doctor,

Greetings from Micro Labs. We are happy to bring you "Derma Today" which contains latest and interesting news in the field of Dermatology.

This issue contains:

1. Body mass index parameters- pre and post diagnosis of Hidradenitis Suppurativa.
2. Dermatological Manifestations Post Bariatric Surgery
3. Case of COVID-19 associated immune thrombocytopenic purpura in an asymptomatic young healthy patient

Should you require any article or, medical information, please feel free to contact us medicalservices@microlabs.in Looking

forward to your valuable feedback.Best

Regards,

Medical Team, Micro Labs Limited.

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Body mass index parameters- pre and post diagnosis of Hidradenitis Suppurativa

Introduction

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease which affects the axillary, inguinal, inframammary regions. HS and obesity have been implicated to have a definitive relationship.

Current study aimed at assessing the overall and demographic trends in body-mass index, in patients with HS pre and post its diagnosis, in comparison to a control period over the similar time period.

Methods

A retrospective study included case-control analysis of 1,274 HS patients and the controls were matched based on age, gender, race and time period of diagnosis of HS. Body Mass Index (BMI) 7 years the before the diagnosis and the trend of change in BMI, were compared between patients with HS and the controls using suitable statistical analysis.

Results

Baseline BMI found to be higher in patients with HS compared to the controls, with mean difference of ~ 3.03 kg/m^2. The difference was significant in women subjects (mean difference = 3.37 kg/m^2) compared to men (mean difference = 1.27 kg/m^2), also the difference in BMI was higher in HS patients diagnosed before age 40 years than in patients diagnosed with HS over 40 years of age. Before the diagnosis, average yearly increase in BMI among patients with HS, was slightly higher than controls. Statistically significant, change in annual BMI among HS patients following diagnosis, was not observed.

Discussion

Discussion

A number of studies have studied the link between HS and obesity, although there exists a conflicting evidence regarding the relationship between obesity and HS severity. The results of this cross sectional study reveals a positive association between BMI and disease severity, although some case reports have evidenced the improvement in disease severity with weight-loss. The researchers opine that this is the first population-based study establishing a temporal relationship between HS and obesity, and the first to put forward the influence of both baseline BMI and the rate of BMI change on the development of HS.

Conclusion

Baseline BMI and, to a lesser degree, rate of BMI change appear increase the risk of developing HS. Influence of BMI has a greater impact among female and younger patients.

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Reference
Wright S, Strunk A, Garg A. Trends in Body Mass Index Before and After Diagnosis of Hidradenitis Suppurativa. Br J Dermatol. 2020 Dec 10.

Dermatological Manifestations Post Bariatric Surgery

Introduction

Dermatological signs observed in morbid obesity may alter according to the reduction in weight, especially post-bariatric surgery (BaS). However, there are limited studies regarding dermatological manifestations, specifically in post-BaS.

Methods

This cross-sectional, single center study included 70 patients. Patients aged more than 18 years, with morbid obesity (BMI ≥ 40 kg/m^2), who underwent bariatric surgery were included in the study. Patients who did not provide consent to participate in the study, or treated for skin conditions 6 months prior to the examination were excluded from the study. The patients were divided into two groups- patients with successful weight loss (% excessive body weight loss (EBWL) of at least 50%) and a non-successful group (%EBWL < 50%).

Results

Forty-six patients who experienced successful weight loss showed a significantly lower occurance of acanthosis nigricans on the neck, axillae and inguinal areas, keratosis pilaris (KP) and pebble fingers. However, a higher prevalence of alopecia was observed. Prevalence of KP and pebble fingers, was notably less in patients with successful weight loss. When the laboratory results were compared pre- and post-surgery, significant decreases in fasting plasma glucose, haemoglobin A1C, and triglyceride and an increase of high-density lipoproteins in both groups were found. However, a notable decrease of liver aminotransferases (AST and ALT) were observed only in the successful group. However, a lowered vitamin B12 values, were observed in the successful group.

Fig. 1 Acanthosis nigricans and acrochordon on the neck (**a**); keratosis pilaris on the back (**b**); keratosis pilaris on the arm (**c**); pebble fingers (**d**); intertrigo and acrochordons on left axilla (**e**); intertrigo and striae on right axilla (**f**) in a patient with 48.9%EBWL

Discussion

This study showed that, only a few patients who had a successful weight loss journey were affected by certain skin signs such as KP and pebble finger.

AN, acrochordons, intertrigo, hidradenitis suppurativa, psoriasis and necrobiosis lipoidica have improved post- bariatric surgery. Diet-control could be an important factor in lessening the AN severity as it leads to weight reduction and improved insulin resistance. Nutritional deficiency is considered to be associated with nutritional deficiency due to sudden and massive weight loss.

Nutritional deficiency is a well-documented complication of bariatric surgery with vitamin B12 deficiency being the most frequent form of deficiency. In this study, no dermatological manifestations of Vitamin B12 deficiency were observed, though the levels were found to be significantly lowered.
The authors opine that, long-term prospective studies would provide a better picture of the course of dermatological manifestations post-bariatric surgery compared to a cross-sectional study

Conclusion

Improvement for metabolic profiles were found post-bariatric surgery. Successful weight reduction led to better skin improvement. However, the surgery necessitates nutritional supplements.

Reference:

Itthipanichpong Y, Damkerngsuntorn W, Tangkijngamvong N, Udomsawaengsup S, Boonchayaanant P, Kumtornrut C, Kerr SJ, Asawanonda P, Rerknimitr P. Skin manifestations after bariatric surgery. BMC Dermatol. 2020 Dec 9;20(1):21.

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Case of COVID-19 associated immune thrombocytopenic purpura in an asymptomatic young healthy patient

Case study

Dermatological findings in patients infected with COVID-19 with severe respiratory syndrome has become a usual presentation of late. Common findings include pseudo-chilblains, vesicular, urticarial, and maculopapular eruptions. Immune thrombocytopenic purpura is one of the unusual presentation of COVID-19.

Case report

A 24-year old male patient presented with a history of acute-onset petechial rash on his lower extremities since a couple of days.

He was on regular exercise schedule. He sought medical help when the lesions did not fade away, but become obvious day-by-day. One-day prior to petechial eruption, he reported gingival bleeding along with buccal hematoma, which followed a dental procedure.

He had no respiratory symptoms, anosmia, hyposmia, headache, fever or any other symptoms.

Fig 2. Petechial and purpuric lesions in left thigh.

COVID-19 related acute platelet, disarrangement was suspected following which the patient was asked to stop any physical activity. The swab test for SARS-CoV-2 was positive. The peripheral film revealed isolated thrombocytopenia without platelet clumps, normal neutrophils, and red blood cells, which suggested ITP.

Fig 1. Multiple petechial skin lesions in left foot.

The treatment was commenced with endovenous immune-globulins (flebogamma 1g/d for 2 days) along with a thrombopoietin receptor agonists (Revolade, 50 mg/ d). Corticosteroid use was not preferred.

The ITP was negative for HIV, Hepatitis B, anti-DNA and lupus anticoagulant. Anti-nuclear antibodies showed positive results at 1/640.

The patient improved with a progressive increase in platelet count and the purpuric lesions began to disappear, which prompted discharge on the sixth day. Covid-19 could not be considered as the definitive cause of ITP in this patient.

Discussion

This case is an unusual presentation of an asymptomatic patient of Covid-19, showing severe ITP associated with severe risk of bleeding unlike the other cases which appeared in the context of Covid-19 infection with respiratory illness.

SARS-Cov-2 is also implicated to be an aetiology of ITP, as it can have an impact on hematopoietic and bone marrow stromal cells causing, hematopoietic dysfunction and bone marrow growth inhibition or a cytokine storm, which, in turn, brings about destruction of bone marrow progenitor cells, both of which results in lowered platelet synthesis.

Another mechanism could involve autoimmune reactions against blood cells which could lead to platelet destruction. This mechanism warrants further investigation.

Conclusion

Since, petechiae and purpura have been a frequent finding in Covid-19 infection, dermatologist should consider ruling out SARS-Cov-2 infection in patients suspected with thrombocytopenic purpura even if respiratory symptoms are not present.

Source:
Lobos P, Lobos C, Aravena P. Immune thrombocytopenic purpura associated with coronavirus disease 2019 infection in an asymptomatic young healthy patient. JAAD Case Rep. 2020 Nov;6 (11):1129-1131.