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HIDRADENITIS SUPPURATIVA SUCCESSFULLY TREATED WITH ADALIMUMAB

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Гнійний гідраденіт (ГГ) – це захворювання шкіри, що характеризується формуванням численних кіст, абсцесів та свищевих трактів в зоні апокринних залоз. Етіологія і патогенез ГГ невідомі. Існуючі медичні та хірургічні терапевтичні практики мають мінімальний ефект лікування цього захворювання. Біологічний засіб Адалімумаб – це новий перспективний засіб лікування ГГ

Ключові слова: Гнійний гідраденіт, біопрепарати, апокринні залози, адалімумаб

Aim: To discuss the new beneficial effect of adalimumab in the management of hidradenitis suppurativa(HS).

Case: We report a 25-year-old arabic female with a 14-year history with long-standing poorly controlled active hidradenitis suppurativa who was successfully treated with adalimumab.

Discussion: Hidradenitis suppurativa is a skin disorder characterized by the formation of multiple cysts, abscesses and sinus tracts in apocrine gland-bearing areas. The aetiology and pathogenesis of HS are unknown. Current medical and surgical therapies are only minimally effective at treating the disease. The biologic agent Adalimumab is a new promising agent for the treatment of HS.

Conclusion: The biologic agent adalimumab is an effective treatment for HS

Keywords: Hidradenitis suppurativa, biologics, apocrine glands, adalimumab

1. Introduction

Hidradenitis suppurativa (HS) is a chronic inflammatory disease of the skin characterized by recurrent nodules, abscesses, sinus tract formation and scarring affecting mainly areas rich with apocrine glands including the axillae, groin, buttocks, perianal and submammary regions. The disease initially presents during puberty and is more common in females. Treatment options include oral antibiotics, isotretinoin, finasteride, prednisone, cyclosporine, surgery, carbon dioxide laser therapy and radiotherapy. Recently, the efficacy of different biologics has been demonstrated. We report a patients with long-standing active hidradenitis suppurativa who was successfully treated with adalimumab.

2. The case

A 25-year-old arabic female presented with a 14-year history of painful discharging nodules, sinuses and cysts involving axillae (Fig. 1, a), submammary region and groin. Her past medical history was negative ex-

cept for mild acne vulgaris affecting the face. There was no history of inflammatory bowel disease or any other medical illnesses. Physical examination of the axillary areas, submammary and the groins revealed multiple erythematous tender nodules with discharging sinuses and abscesses. Some areas were macerated due to the continuous severe inflammation. Other areas showed healed hypertrophic scars. Her baseline investigations including complete blood count, liver function tests, renal function tests, lipid profile, antinuclear antibodies, antidouble stranded DNA, complement 3 and 4 and c reactive proteins were within normal limits. Culture of the discharge from the abscesses was negative. So the patient was diagnosed as a case of HS. Initially, she was treated with oral isotretinoin 1 mg per kg for 5 months with no improvement then a course of oral doxycycline 100 mg once daily for 12 weeks failed to improve the condition. A single course of Infliximab (three intravenous infusions at weeks 0, 2 and 6) was started for 10 weeks with minimal improvement. Over a period of few months

the condition worsened so she was admitted to the surgical ward for wound care and debridement. After a period of one month the patient was started on Adalimumab 80 mg subcutaneous as a loading dose followed by 40 mg every one week for 16 weeks. The condition improved immediately with regard to the lesions size and the discharge with no new lesions appearing. She maintained her response for almost one year but due to unavailability of adalimumab in the hospital the patient discontinued taking it for three months. This time, she presented to the clinic with severe relapse. Adalimumab was restarted with a dose of 160 mg subcutaneous injection as a loading dose followed by 80 mg in the following week then maintained on 40 mg weekly with an excellent response (Fig. 1, *b*). She is being followed up every 8 weeks in the clinic with good control of the lesions.

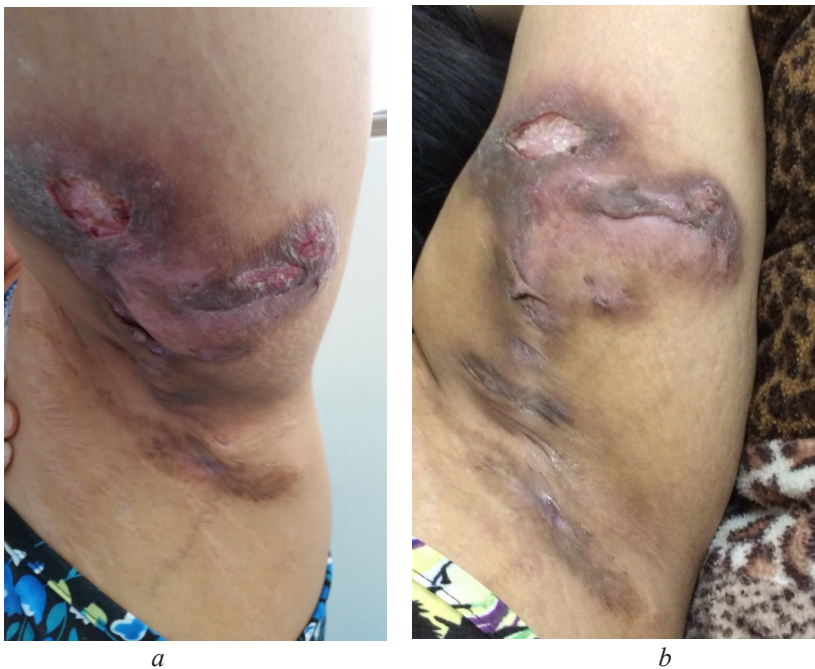


Fig. 1. hidradenitis suppurativa involving the left axillary area:
a – Left axilla with severe inflammation and draining sinuses and hypertrophic scars; *b* – healing of the lesions after adalimumab treatment

3. Discussion

Hidradenitis suppurativa (HS) was first described in 1839 by Velpeau [1]. It was classified as a member of the follicular occlusion triad, along with *Acne conglobata* and dissecting cellulitis of the scalp [2, 3]. In 1975, pilonidal cyst was added as a member to this triad, forming the follicular occlusion tetrad [4]. The global HS prevalence was reported as 1 % in a review of several studies with female predominance [5–7]. The mode of inheritance of HS remains unclear. Genetic studies have indicated several gene loci on chromosomes 6q25.1–25.2 and 9p12–p13.11 but no causative genes have yet been identified [8]. The disease is essentially limited to areas of the skin that are rich in terminal hair follicles and apocrine glands, such as the axillae, anogenital area, submammary areas and the buttocks [7, 9]. Clinically, it is characterized by recurring pustules, inflammatory nodules, abscesses, draining sinus formation, fibrosis, secondary lymphedema and dou-

ble-ended pseudocomedones. In its severe form it can be a devastating disease with a great impact on the quality of life [10]. HS transformation into SCC has been documented in 41 reports [11–20] with 61 % present at the perineal or buttock area. It is considered as the most severe complication of HS. The diagnosis of HS is primarily made on the basis of its characteristic clinical presentation. A consistent finding in histological studies of HS is follicular occlusion due to hyperkeratosis leading to occlusion of the apocrine gland with subsequent follicular rupture, inflammation and possible secondary infection. A reduction in the percentage of NK cells over time and a lower monocyte response to bacterial components was observed in patients with HS [21]. Current treatment of hidradenitis suppurativa consists of topical antibacterial or antiseptic solutions, systemic antimicrobials such as tetracyclines (doxycycline, minocycline) [22], retinoids, systemic and intralesional steroids, hormonal therapy, and a wide range of surgical interventions [23]. The beneficial effect of anti-TNF therapies such as infliximab in hidradenitis suppurativa was first reported [24–28]. Subsequently reports with etanercept (Enbrel) and adalimumab (Humira) in hidradenitis suppurativa have been published [29–31]. The clinical improvement of HS with anti-TNF therapies supports the hypothesis for an altered immune response in these patients [32]. Besides, a reduction in the percentage of natural killer cells over time and a lower monocyte response to triggering by bacterial components is observed in patients with HS [21].

4. Conclusions

This is a case of chronic persistent HS that failed all classical therapies for HS but has shown superior response with adalimumab. Hopefully, future reports will reveal the pathogenesis of HS through the action of these drugs which might lead to discovery of specific new innovative therapies to this debilitating condition.

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ЕХОКАРДИОГРАФІЧНІ ЗМІНИ У ЖІНОК З ХРОНІЧНОЮ СЕРЦЕВОЮ НЕДОСТАТНІСТЮ ЗАЛЕЖНО ВІД ІНДЕКСУ МАСИ ТІЛА

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Досліджено ехокардіографічні зміни у жінок з хронічною серцевою недостатністю залежно від індексу маси тіла. Встановлено, що зі збільшенням індексу маси тіла відбувається наростання ступеня дилатації аорти, лівого шлуночка та правого передсердя на фоні поглиблення концентричної гіпертрофії міокарда, кальцинозу клапанів серця та діастолічної дисфункції I типу. Спостерігається переважання чистої систолічної дисфункції серед жінок з ХСН та нормальною масою тіла, та зменшення її поширеності зі збільшенням ІМТ

Ключові слова: ехокардіографічні зміни, жінки, хронічна серцева недостатність, індекс маси тіла

Chronic heart failure (CHF) is a widespread disease of cardiovascular system its prevalence is caused with improvement of diagnostic methods simultaneously with an aging of general population. Women are the half of all patients with CHF most of them has preserved fraction of output from the left ventricle with associated diastolic dysfunction. The aim of research was the study of echocardiographic changes in women with chronic heart failure depending on body mass index.

Methods: *There were examined 237 women with different body mass index (BMI), in 222 was diagnosed CHF of I–III functional class (FC). All patients underwent calculation of BMI using Kettle formula and Doppler-echocardiographic examination. The calculations of results were carried out using the methods of parametric and nonparametric statistics depending on size and distribution of samples.*

Results: *In women with CHF the growth of dilatation of aorta, right atrium and left ventricle take place at an increase of BMI. The maximal size of the left atrium and right ventricle were registered in the group of examined person with normal body weight. The hypertrophy of left ventricle myocardium in women with CHF progresses proportionally to an increase of BMI. In patients with CHF on the background of obesity the deeper processes of valvular calcination take place. There is a predominance of pure systolic dysfunction in women with CHF and normal body weight, and reduction in its prevalence with BMI increasing. In women with CHF with an increase of BMI takes place the deepening of diastolic dysfunction (by the type of relaxation disorder) and an increase of its prevalence. The remodeling of myocardium in women with CHF in most cases was presented by concentric hypertrophy of the left ventricle and its frequency is directly proportional to an increase of BMI.*