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Resident's Page

Incognito lesions in dermatology

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The term incognito is derived from a Latin word "incognitus" meaning unknown or in disguise. The "incognito diseases" in dermatology include tinea incognito, alopecia areata incognito (AAI), syphilis incognito, herpes incognito, melanoma incognito, Malassezia folliculitis incognito, impetigo incognito, and scabies incognito.

TINEA INCOGNITO

Ives and Marks used the term tinea incognito in 1968 to describe the atypical lesions of superficial dermatophytosis in patients who applied topical corticosteroids.[1] This also includes cases modified by systemic steroids and topical calcineurin inhibitors.[2] Atzori *et al*. opined that clinical atypia may also depend on other factors such as the variability in the invasive capacity of the dermatophyte, the site of the invasion, physiology of the individual, and acquired factors such as excessive washing or sun exposure.[2] They have suggested the term "tinea atypica" rather than "tinea incognito," to include all forms of dermatophytosis that do not present with the classic features.[2] Verma suggested that tinea incognito should not be used interchangeably with steroid modified tinea as most cases of steroid modified tinea are not incognito. He opined that the term "tinea incognito" should be limited to lesions that are difficult to diagnose as in tinea faciei.[3] The grammatical error in the term tinea incognito was pointed out by Holubar and Male in 2002.[4] The Latin noun "Tinea" is a feminine gender, and therefore, the adjective "incognito" that follows it should also be feminine gender, that is, "incognita." Moreover, the correct word is "Tinea incognita."[5] In a study by Dutta *et al*., tinea faciei was the most common type of tinea incognito, precipitated by the triple combination prescribed by the pharmacist, and Trichophyton rubrum and mentagrophytes were the common causative agents.[6] Different clinical presentations including eczematous, pseudo imbricate, granuloma annulare like and Hansens disease like are reported in Tinea incognito. Erythema and follicular and nonfollicular pustules are also seen.[6] The clinical presentation also mimics various dermatoses, such as discoid lupus erythematosus and systemic lupus erythematosus, inflammatory conditions such as psoriasis and rosacea, and exanthematous conditions such as maculopapular rash and erythema multiforme. In most cases, patients were using over the counter preparations.[6] The smear positivity in tinea incognita is high- and long-term treatment with oral antifungals is often needed.

ALOPECIA AREATA INCOGNITO (AAI)

Alopecia areata is a common cause of non-scarring alopecia, and it has two variants which pose difficulty in diagnosis, and these are AAI and diffuse alopecia areata (DAA). AAI was first described by Rebora and is commonly seen in young women as acute and diffuse hair loss.[7,8] It is more common in females with androgenetic alopecia.[7] Pathologically, the follicular units are

preserved with a reduced number of anagen and preserved telogen follicles and numerous dilated infundibular hosts, rich in keratin and sebum. The main distinguishing histopathological characteristic between DAA and AAI is the lymphocytic infiltrate, more abundant and profound in DAA, where it is located at the level of the hypodermis and, therefore, represents a sign of more severe and acute damage.[9] Tosti *et al*. documented the presence of diffuse yellow dots in 95% of patients with AAI.[10] Another typical trichoscopic feature of AAI is the presence of short regrowing hair (0.2–0.4 mm). According to Inui *et al*., the trichoscopic combination of yellow dots and/or short hairs in regrowth has a diagnostic sensitivity of 96% for AAI.[11] Hair follicles in the early anagen phase were in greater number in DAA than in AAI. In DAA, dystrophic hair and black dots are seen more frequently in trichoscopy, indicating the acute and deep inflammatory damage. Biopsy, along with trichoscopic evaluation, helps to differentiate the two and the prognosis is good for AAI and treatment options include topical and oral steroids.[9]

SYPHILIS INCOGNITO

Syphilis incognito is a subtype of latent syphilis (early or late) characterized by no signs or symptoms of primary or secondary syphilis and diagnosed by positive serologic results for syphilis during routine screening.[12] Untreated syphilis incognito leads to active disease years later in the form of neurological or cardiovascular syphilis, and also, vertical transmission can occur in 30% of cases. A subgroup of these patients may not represent true syphilis incognito as they might have overlooked the painless ulcer. This could be a concealed chancre or, at times, the patient may not be remembering the history and clinical manifestations of primary or secondary syphilis that may easily be misdiagnosed or unnoticed.[12] The reasons for true incognito cases may be improved personal hygiene and the use of soaps and antiseptics which prevent the development of primary chancre that promotes rapid healing of chancre.[12] Happenstance treatment with antibiotics for other causes may be another reason.[12] Stratigos *et al*. found syphilis incognito to be more common in heterosexual young females.[12] The female predilection could be due to the universal screening for syphilis in pregnancy and also due to a higher chance of concealed lesions in females. According to the Oslo study, patients with syphilis who were isolated, but otherwise received no treatment, in a hospital in the late 19th to the early 20th century, 15% developed late benign gummatous syphilis later in their lives, 10% developed cardiovascular syphilis, and 8% experienced neurosyphilis.[13] Nowadays, this progression appears to be less common, probably due to the wide use of antibiotics. However, atypical presentation of late syphilis is rising. Hence, more search must be done to detect cases of syphilis incognito in the present scenario. The emergence of syphilis incognito emphasizes the need for continuation of syphilis screening among asymptomatic individuals, especially those at high risks, such as commercial sex workers, illicit drug users, homosexuals, patients with sexually transmitted diseases, and pregnant women.

SCABIES INCOGNITO

Inappropriate use of steroids may modify the clinical presentation of scabies, and when it mimics other dermatoses, the term scabies incognito is used. It is considered to be a subtype of scabies surreptitious (non-classic/atypical scabies). Other subtypes being crusted, bullous, hidden, incognito, nodular, and scalp-related scabies.[14] Scabies incognito can present as bullous lesions, resemble arthropod bites, contact dermatitis, eczematous dermatitis, impetigo, Langerhans cell histiocytosis, psoriasis, seborrheic dermatitis, subcorneal pustular dermatosis, and urticaria pigmentosa.[15] Dermoscopy has been proved to be useful in these cases. Other investigations such as microscopy and biopsy may help in establishing the diagnosis.

IMPETIGO INCOGNITO

Impetigo can initially improve and show less inflammation with steroid application. However, on the continuation or abrupt discontinuation of steroid, the infection may become severe and can spread quickly.[16] Steroids exacerbate the skin infections by the following mechanisms - suppression of the inflammatory response to infections, vasoconstriction with slower mobilization of defenses, increased hydration of stratum corneum by base or occlusion, decreased epidermal turnover with reduced shedding of scales and surface organisms, stimulation of metabolism of pathogens (especially Pseudomonas), and by obscuring the diagnosis.[17]

MALASSEZIA FOLLICULITIS INCOGNITO

It is the latest addition to the incognito conditions. Atypical presentation of Malassezia-associated folliculitis in patients who have been treated with topical corticosteroids is referred to as Malassezia folliculitis incognito. Cohen *et al*. reported a clinical case of follicular eczema and follicular contact dermatitis which improved with the application of topical steroid and mimicked flattened follicular eczema with hyperpigmentation. Recurrence of lesions prompted skin biopsy, and thus, diagnosis of Malassezia folliculitis incognito was established.[18]

MELANOMA INCOGNITO

Although melanoma accounts for only 4 % of all skin cancers, it is responsible for more than 80% of deaths

from skin cancers.[19] Usually, a clinician is alerted to the possibility of a melanoma when he comes across any pigmented lesion with asymmetry, border irregularity, color variegation, diameter >6 mm, and recent change in the lesion.[20] Melanoma incognito refers to clinically unsuspicious lesions that mimic a benign lesion. Melanoma incognito is also known as featureless melanoma.[21] Melanoma incognito may simulate benign skin lesions such as hemangioma, seborrheic keratoses, melanocytic nevi, pyogenic granuloma, or a dermatofibroma.[21-23] Acral melanoma can mimic ulcers, hemorrhage, or warts.[24] The number of melanomas that appear benign and are left untreated ranges from 1.5% to 15%.[22] Melanoma incognito does not have sufficient clinical features to justify a biopsy. However, when biopsied, the histopathology will be a clear cut melanoma.[21] Dermoscopy is a useful non-invasive tool that helps in diagnosing melanoma incognito.[22] Serial dermoscopic examination of doubtful cases helps in the diagnosis of early melanoma.[23]

HERPES INCOGNITO

Herpes incognito is the term introduced to describe herpes infections, where clinical examination and cytology are not typical of herpes virus infections.[25] Histopathological examination or, in some cases, clinical course alone will help to clinch the diagnosis. Infection by herpes viruses, especially in the early stages, may present as macules, papules, and plaques, and the diagnosis in such scenarios is challenging.[25] Among the cases of herpes incognito, the majority turns out to be herpes zoster. The strict dermatomal distribution of lesions and associated pain may provide a clue to the diagnosis. The histopathological features reported in herpes incognito are superficial and deep infiltrate of lymphocytes that are dense in the perivascular region and sparse in the interstitium. Lymphocytes are also seen periadnexally and perineurally. Epidermal changes, such as spongiosis, vacuolar changes, and necrotic keratinocytes, are typical of early zoster infection. Extravasated erythrocytes as well as edema of the papillary dermis are seen in acute lesions. In cases, where histopathological examination fails to help in diagnosis, a polymerase chain reaction may be used for confirmation.[25]

ECZEMA HERPETICUM INCOGNITO

Eczema herpeticum occurs as a life-threatening widespread infection with herpes simplex virus in patients with chronic skin diseases like atopic dermatitis. Sometimes, it is mistaken for impetigo, and then, it is called eczema herpeticum incognito. This usually occurs with recurrent infection in patients with severe atopic dermatitis. Bacterial culture can be positive due to secondary infection, and so there should be a high index of suspicion. Diagnosis is confirmed by Tzanck smear, viral culture, PCR, or immunofluorescence, though the sensitivity of these investigations is low. Patients often need to be treated empirically with acyclovir.[26]

Declaration of patient consent

Not required as there are no patients in this article.

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Conflicts of interest

Dr. Mary Vineetha is on the Editorial Board of the Journal.

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