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Comparative study of efficacy and safety of hydroxychloroquine and chloroquine in polymorphic light eruption: A randomized, double-blind, multicentric study

Anil Pareek, Uday Khopkar, S. Sacchidanand, Nitin Chandurkar, Geeta S. Naik 18

In a double-blind randomized, comparative multicentric study evaluating efficacy of antimalarials in polymorphic light eruption, a total of 117 patients of PLE were randomized to receive hydroxychloroquine and chloroquine tablets for a period of 2 months (initial twice daily dose was reduced to once daily after 1 month). A significant reduction in severity scores for burning, itching, and erythema was observed in patients treated with hydroxychloroquine as compared to chloroquine. Hydroxychloroquine was found to be a safe antimalarial in the dosage studied with lesser risk of ocular toxicity.

Many faces of cutaneous leishmaniasis

Arfan Ul Bari, Simeen Ber Rahman

Symptomatic cutaneous leishmaniasis is diverse in its presentation and outcome in a tropical country like Pakistan where the disease is endemic. The study describes the clinical profile and atypical presentations in 41 cases among 718 patients of cutaneous leishmaniasis. Extremity was the most common site of involvement and lupoid cutaneous leishmaniasis was the most common atypical form observed. Authors suggest that clustering of atypical cases in a geographically restricted region could possibly be due to emergence of a new parasite strain.



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Forehead plaque: A cutaneous marker of CNS involvement in tuberous sclerosis

G. Raghu Rama Rao, P. V. Krishna Rao, K. V. T. Gopal, Y. Hari Kishan Kumar, B. V. Ramachandra

In a retrospective study of 15 patients of tuberous sclerosis, eight patients had central nervous system involvement. Among these 8 cases, 7 cases had forehead plaque. This small study suggests that presence of forehead plaque is significantly associated with CNS involvement.

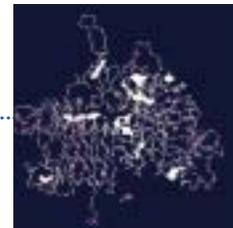


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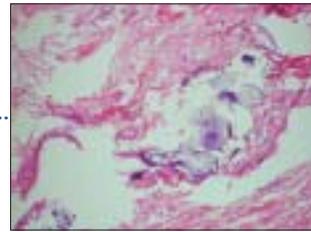
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Madarosis: A dermatological marker

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INTRODUCTION

Madarosis is derived from the ancient Greek word "madaros" meaning "bald" and is defined as hair loss of the eyebrows (superciliary madarosis) or loss of eyelashes (ciliary madarosis). Loss of eyelashes is also known as milphosis. In addition to the obvious cosmetic blemish for which the patient usually presents to dermatologists or ophthalmologists, madarosis may be the presenting sign of many systemic diseases and warrants detailed systemic examination and in some cases, consultation with an internist or endocrinologist for further management. This article focuses on the various causes of madarosis.

ETIOLOGY AND ASSOCIATIONS OF MADAROSIS

1. Inflammation

Inflammation of the eyelids (blepharitis) can cause loss of eyelashes. It can be due to infection, seborrhea, trauma or allergy.^[1-2]

a) *Infections*: Infection due to *Staphylococcus aureus* results in thin, honey-colored flakes (collarettes) among the eyelashes. Long-standing staphylococcal infection is associated with loss (madarosis), whitening (poliosis) and misdirection (trichiasis) of eyelashes. Madarosis has been reported as the most common ocular lesion (76%) in leprosy patients.^[3] The ocular involvement is higher in lepromatous leprosy followed by borderline and tuberculoid leprosy and shows increased incidence with the age of the patient and duration of the disease.^[4] Parasitic infestation of eyelids with the mite *Demodex folliculorum* commonly found in the pilosebaceous components of the eyelid can also

result in the loss of eyelashes.^[5] Mites have been found to be more abundant in older persons, diabetics, and those with *S. aureus* infection of the eyelid. These are characterized by the presence of waxy, cylindrical cuffs (hypertrophic follicular epithelium) around the bases of the eyelashes. The mite consumes epithelial cells, produces follicular distention and hyperplasia and increases keratinization leading (in eyelashes) to cuffing, which consists of keratin and lipid moieties. Follicular inflammation produces edema and results in easier epilation of the eyelashes. It also affects cilia construction so that lashes become brittle and fall.

Systemic fungal infection with paracoccidioidomycosis can present with eyelid involvement in rare cases.^[6] Active lesions present with erythematous patches of madarosis to frank destructive ulcers indistinguishable from malignancies while inactive lesions present with loss of eyelashes. Syphilis can also cause madarosis causing lateral brow loss (Hertoghe sign). Other infectious causes include chronic ulcerative blepharitis, tuberculosis, severe acute bacterial infections such as scarlet fever, viral infections such as herpes zoster, smallpox, measles, hepatitis, and chlamydia trachomatis infection.^[1-2,7]

- b) *Trauma* from rubbing or plucking may be the cause of unilateral or bilateral lash loss.
- c) *Allergy*: The loss of lashes may be secondary to allergy to the use of eye cosmetics such as mascara. Waterproof 'mascaras' are the most difficult to remove and can take too many lashes with them.

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2. Autoimmune disorders

Loss of eyebrows and eyelashes can occur in association with alopecia areata. Although loss of scalp hair is usually present, rarely madarosis may be the presenting sign.^[8-9] Discoid lupus erythematosus (DLE) usually presents with lesions on the sun-exposed areas.^[10-11] Periocular involvement occurs uncommonly and may progress from eyelid erythema to scarring and madarosis. However, madarosis may be the presenting sign of DLE in the absence of any history of preceding erythema and scarring and should therefore be considered in the differential diagnosis of chronic blepharitis that persists despite usual medical management and eyelid hygiene. Madarosis has also been reported to occur in systemic lupus erythematosus and scleroderma.

3. Tumors

Benign and malignant tumors of the eyelids such as chalazion, squamous cell carcinoma, basal cell carcinoma, sebaceous carcinoma, lymphomas and sclerosing sweat duct carcinoma of the eyelid can present with loss of eyelashes.^[1-2,12-13]

4. Endocrine disorders

Hair follicle activity is affected in pathologic states such as hypothyroidism or hyperthyroidism.^[14-15] Changes of hair growth and hair structure may be the first clinical sign of a thyroid hormonal disturbance as a result of the influence on the cell cycle kinetics of the hair follicle cells. In hyperthyroidism, hair changes include thinning, breaking off, shortening of the hair and patchy areas of hair loss. Eyelash loss has been reported as an early sign in hyperthyroidism.^[16] In hypothyroidism, the hair may become dull, brittle and coarse, with reduced diameter and may involve the eyelashes and brows.^[17] Madarosis may also be associated with hypopituitarism and hypoparathyroidism.

5. Congenital causes

Loss of eyelashes, in association with other ocular abnormalities, has been reported in congenital ichthyosiform erythroderma, lamellar ichthyosis, hereditary ectodermal dysplasia syndrome, congenital atrichia, cryptophthalmos, Ehlers Danlos syndrome and lid coloboma.^[1-2,18]

6. Drugs and toxins

Idiosyncratic reaction resulting in unilateral madarosis and facial alopecia has been reported secondary to long-term use of Botulinum A injections for orofacial

dystonia.^[19] Drugs such as miotics, anticoagulants, anticholesterol drugs, antithyroid drugs, boric acid, bromocriptine, propranolol, valproic acid and chronic epinephrine therapy have been reported to cause loss of eyelashes.^[1-2] Ciliary madarosis has also been reported following cocaine use.^[20] Intoxication with arsenic, bismuth, thallium, gold, quinine, and vitamin A can also cause loss of eyelashes.

7. Psychiatric causes

This includes trichotillomania which refers to a rare form of hair/eyelash loss resulting from avulsion of hairs by the patient.^[21] It is characterized by compulsive pulling out of one's hair associated with tension or an irresistible urge before pulling, followed by pleasure or relief. The hairs are broken at different levels, they may be tufted, tortuous and some hair fibers may be abnormally longer than others. The hair follicles may be prominent.

8. Miscellaneous

Dermatological conditions such as acanthosis nigricans can be associated with ectodermal defects. Familial acanthosis nigricans has been reported with madarosis.^[22] Loss of eyelashes has also been reported in association with Vogt-Koyanagi syndrome, epidermolysis bullosa, rosacea, psoriasis, metabolic diseases such as mitochondriopathy, adrenoleukodystrophy, malnutrition, Meige syndrome, sickle cell anemia, HIV infection, post- proton beam irradiation for tumors of the choroid of the eye, eyelid tattooing, thermal injury and cryotherapy.^[1-2,23-26]

TREATMENT

Identification of the cause and its treatment will lead to reversal of madarosis in most cases. Madarosis can be camouflaged by eyeliner, artificial lashes affixed by methacrylate-based adhesive or permanent pigment tattooing. Interlesional triamcinolone can be tried in the case of loss of brows.^[27] Surgical repair of the traumatic madarosis can be done but good thickness of the eyelashes and ideal direction of their growth are difficult to achieve.^[28]

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