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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/19140
DOI URL: http://dx.doi.org/10.21474/IJAR01/19140

RESEARCH ARTICLE

TINEACAPITISMANIFESTING AS DIFFUSE HAIR LOSS: THE IMPORTANCE OF TRICHOSCOPY IN TWO CASE REPORT

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Manuscript Info

Manuscript History
Received: 30 May 2024
Final Accepted: 30 June 2024
Published: July 2024

Key words:
Tineacapitis, Trichoscopy, Diffuse Hair Loss

Abstract

Tineacapitis, a commonfungal infection in children, islessfrequentlyobserved in adults. Whenitmanifests as diffuse hair loss, it'srarelyconsidered. Consequently, diffuse hair lossoften leads to a lowclinical suspicion of tineacapitis, resulting in inappropriateempiricaltreatments and delayed diagnoses. Trichoscopy can bypass the need for lengthy, invasive procedures or KOH examinations. This tool not onlydistinguishestineacapitisfromfemale pattern hair loss but alsohelpsdifferentiatebetweenectothrix and endothrix infections. Here, wepresent a two case reports of tineacapitismimickingfemale pattern hair loss, withtrichoscopyplaying a crucial role in diagnosingendothrix infection.

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Introduction:

Diffuse hair lossis a common complaint dermatologistsencounter in daily practice. The mostcommondifferential diagnoses for patients presentingwith hair lossincludetelogeneffluvium, female pattern hair loss, and alopeciaareata [1]. Tineacapitis, a fungal infection of the scalp, isprevalentamongchildren but lesscommon in adults. In adults, itsclinicalfeatures can beatypical, leading to misdiagnosis or delayeddiagnosis and impropertreatment [2]. Trichoscopyis a valuable, non-invasivetool for dermatologiststhataids in evaluating and following up with patients experiencing hair loss. It provides an immediate, cost-effective method to guide accuratediagnosis and therapy, therebypreventingmisdiagnosis.

Observations:

Case n°1:

A 40-year-old woman, withoutanypriormedicalhistory, presentedwith complaints of scalp itching and hair loss for twomonths (Fig. 1). Clinicalexaminationrevealed fragile, sparse hair with diffuse scaling on the scalp. A hair pull test wasstrongly positive across all areas of the scalp. Prior to visitingour care center, the patient had been treated for telogeneffluvium a by a privatepractitioner. Weperformedtrichoscopy of the scalp, whichrevealed a few broken and comma hairs. KOH examination and fungal culture wereadvised. Fungal culture on Sabouraud's dextrose agar showed colonies of T. rubrum. A diagnosis of tineacapitiswas made, and the patient wasstarted on griseofulvin (20 mg/kg/day) doses with5% griseofulvincream for six weeks. The patient respondedwell to antifungaltreatmentwithin four weeks, and the hair pull test becamenegative.

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Case n°2:

A 65-year-old patient, followed for diabetes, presentedwith complaints of itching and diffuse hair loss for one month. Clinicalexaminationrevealed rough hair shafts and scalingacross the entire scalp, with no localized patches of hair loss. The patient had previously been treated for telogeneffluvium. A hair pull test was positive in all areas of the scalp. Trichoscopyexaminationshowedcoiled, brokenhairs and corkscrew hair withscaling. The patient declined a fungal culture thatshowed colonies of Microsporum.Canis. A diagnosis of diffuse tineacapitiswas made, and shewasstarted on griseofulvin (20 mg/kg/day) in twodivided doseswith 5% griseofulvincream for six weeks. The patient respondedverywell to treatment, and the hair pull test becamenegativeafterthreeweeks.

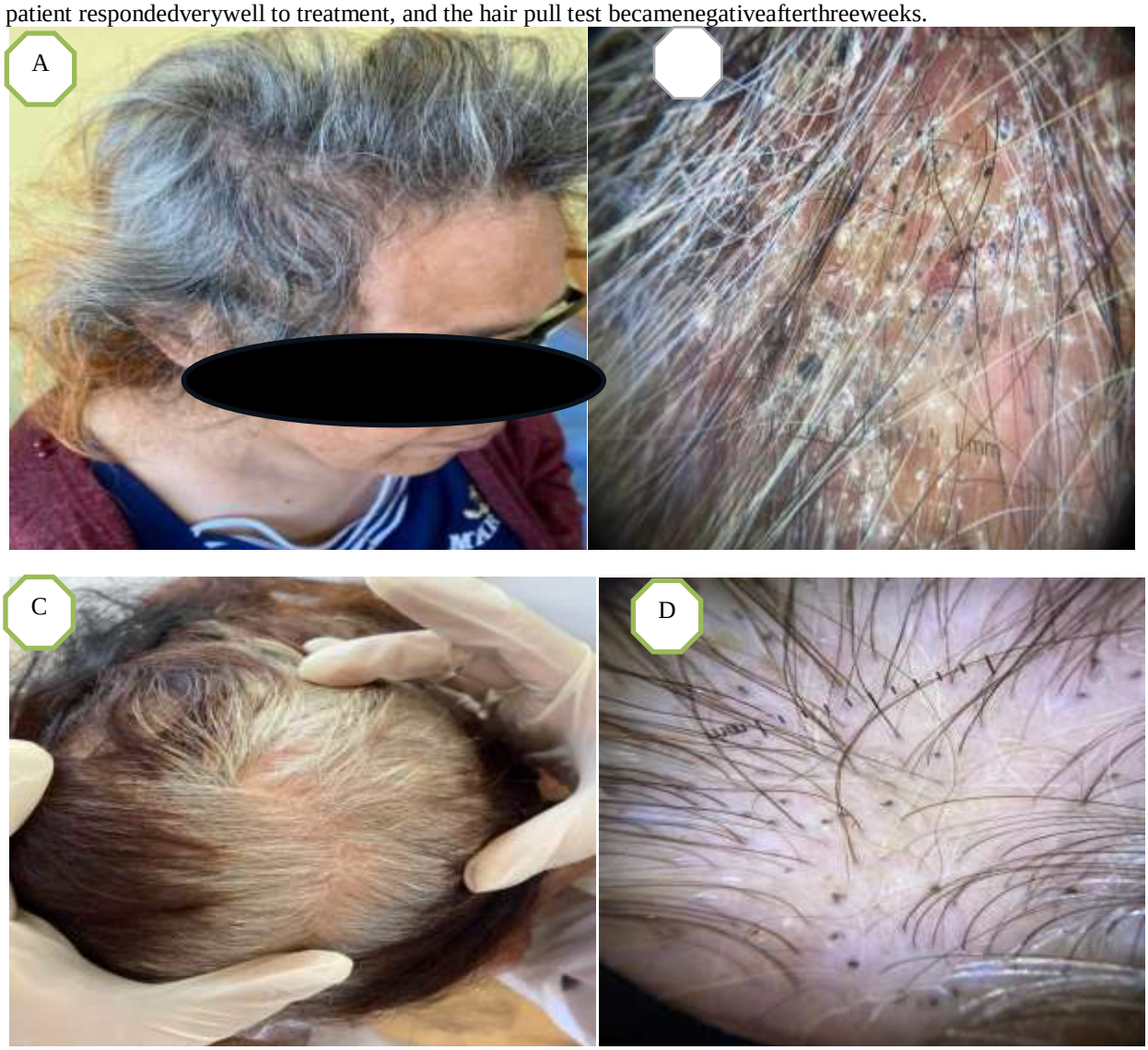

Figure 1 :

A :Tinea capitis in adult presenting as widening of midline partition of scalp.

B :Trichoscopy shows multiple corkscrew hair and comma shaped hair.

C :Tinea capitis in adults: diffuse sparseness of hair with scaling.

D :Trichoscopy of scalp showing comma hair broken hair and corkscrew hair.

Discussion:

Tineacapitisis a commonfungal infection in children but islessfrequentlyencountered in adults [2]. This rarity in adults can beattributed to severalfactors: the fungistaticproperties of sebum, primarilycomposed of saturatedfattyacids, whichinhibits dermatophyte growth; colonization by Pityrosporumorbicularis, whichfurtherprevents dermatophyte invasion; and the thickerdiameter of adult hair, which serves as a physicalbarrier [3]. However, predisposingfactors for tineacapitis in adultsinclude immunosuppression, diabetes, anemia, prolonged use of corticosteroids (topical or systemic), contact withinfectedanimals, and exposure to sources of infection elsewhere on the body (e.g., otherforms of tinea, contact withinfectedchildren, or contaminatedfomites). In postmenopausalwomen, hormonal changes can alter scalp pH and reduce the quality and quantity of sebum, particularly medium-chainfattyacids, therebycompromisingthese protective effects and potentiallyleading to tineacapitis [4].

Clinically, childrenexhibitsymptomssuch as itching, scaling, "black dots," hair loss, and posterior cervical lymphadenopathy. In contrast, tineacapitis in adults tends to present more subtly, oftenresemblingseborrheicdermatitiswithmild inflammation and minimal scaling. Typicalkerionisuncommon, and favus is rare in adults. The variety of atypicalclinicalpresentationsmakesdiagnosischallenging and can delaytreatment【4】.

In our cases, the clinical manifestations did not initiallysuggesttineacapitis (TC). However, the presence of typicaltrichoscopicsignsencouraged us to perform a mycologicalexamination. Dermoscopy, a simple and inexpensivemethod, has been recommended to aid in the clinical recognition of TC by revealingspecificcriteria【5,6,7,8,9,10,11】. The main aspects identifiedinclude: comma hairs, representingbrokenhairs; corkscrewhairs, which are brokencoiledhairs and a variation of comma hairs in cases of curly hair or specificfungalparasitism; bar-code hairs, featuring multiple white bands indicative of localizedfungal infection with normal hair keratin in between; zigzag hairs; and black dots, whichsignifycadaverizedhairs【9 ,10,11】.

Conclusions:

In conclusion, even if mycologicalexaminationis essential to confirm the diagnosis of tinea, hereinweinsistthatTrichoscopyis a very effective usefultool in the screening of TineaCapitis, particularly in adult and atypicalforms.

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