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CASE REPORT

Dissecting Cellulitis of Scalp - A Rarity in Female Patients

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Abstract

Dissecting cellulitis of scalp is a rare dermatosis of the scalp that has a chronic and recalcitrant course, eventually leading to scarring alopecia. It is a condition which is predominantly seen in young adult or middle-aged males. Here we present the case of a 26-year-old female patient, who presented with lesions on the scalp for 6 months. Patient was further investigated and the diagnosis was confirmed by histopathology.

Key Words

Dissecting cellulitis of Scalp, Perifolliculitis Capitis Abscedens, Hoffman Disease

Introduction

Dissecting cellulitis of Scalp (or) Perifolliculitis capitis abscedens (or) Hoffman disease is a rare cause of chronic inflammatory scarring alopecia. Hoffman is the first person to describe the disease in 1908. [1] It is mostly seen in men aged between 18 and 40 years. Lesions start as painful nodules or perifollicular pustules that eventually may become inter-connected to form draining sinuses and tracts. If not managed properly, it can lead to scarring alopecia. It is part of the follicular occlusion tetrad, along with hidradenitis suppurativa, acne conglobata and pilonidal sinus. Other diseases associated include Arthritis, Keratitis, Keratitis-ichthyosis-deafness syndrome, Crohn's disease and Pyoderma gangrenosum. [2] Pathogenetically, a defect in follicular keratinization is blamed, leading to accumulation of sebaceous and keratinous material within dilated pilosebaceous units. This eventually leads to bursting of follicles, followed by an intense neutrophilic inflammatory reaction with abscess and sinus tract formation. Initially, lesions are characterized by acneiform distention of the follicular infundibula with intrafollicular and perifollicular neutrophilic infiltrates. [3] This may progress to form deep seated abscesses in the adventitial dermis and subcutis. Foreign body giant cells and granulation tissue may also be found. Eventually, scarring and sinus tracts partly lined with squamous epithelium, can interconnect lesions up to several centimetres apart. This gradually results in destruction of the normal architecture of the scalp,

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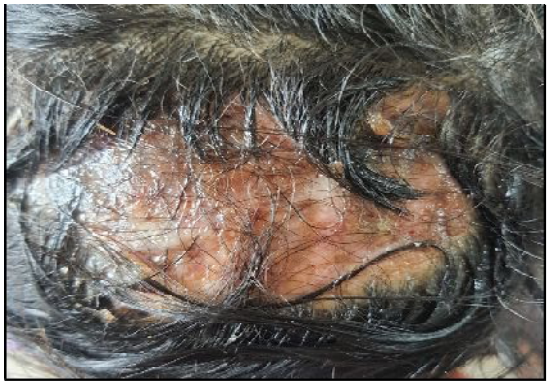

Fig 1. Loss of Hair in the Area Affected Along with Crusting in Certain Areas

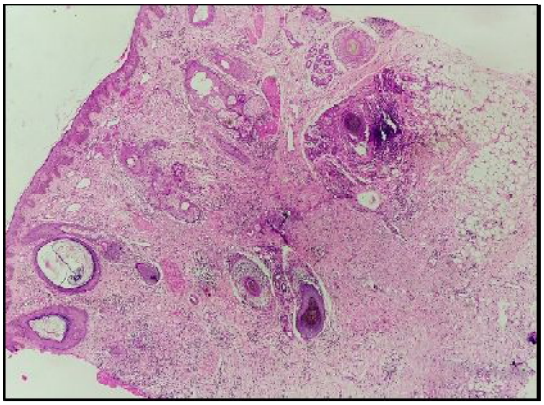

Fig 2. Heavy Lymphoplasmacytic Infiltrate in the Mid and Deep Dermis

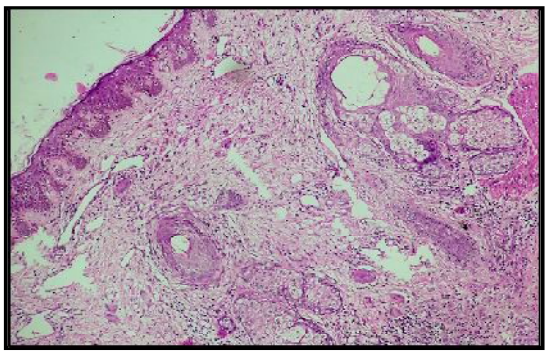

Fig 3. Focal Foreign Body Giant Cell Reaction

sometimes leading to polytrichia. Apart from this, there is also a chance of secondary bacterial infection with both opportunistic strains such as Propionibacterium acnes and coagulase negative Staphylococci and less frequently, overt pathogenic bacterial strains such as Staphylococcus aureus. This can prolong the course of the disease. It has also been suggested that the pathogenesis of this disorder may include an abnormal host response to bacterial antigens. [3]

Case Report

A 26-year-old female presented with complaints of painful lesions on the fronto-parietal region of the scalp for the past 6 months. The patient had a history of trauma 6 months back, followed by which she developed a small lesion on the parietal region of the scalp. The lesion increased in size gradually to attain the present size. She also complained of oozing from the lesion. The patient took antibiotics prescribed by nearby clinic, on and off but did not attain complete remission. No other significant lesion elsewhere in the body was found. On examination, patient had crusting over the fronto-parietal region associated with loss of hair in the area. Tenderness was present. The hairs at the margin were easily pluckable. Basic work-up was done and a scalp biopsy was sent for histopathological analysis. Lymphoplasmacytic infiltrate was found in the mid and deep dermis. Focal foreign body giant cell reaction was seen. Gram's staining showed Staph. epidermidis. PAS and ZN stain were done and found to be negative. Oral Doxycycline 100 mg two times a day for 14 days along with Oral Isotretinoin 10 mg once daily was started, which was continued for 3 months to prevent further relapses. Patient was also started on hair re-vitalizing medications.(*Fig1-3*)

Discussion

Dissecting cellulitis of scalp is a rare condition, especially in females. Because of the male preponderance seen in this condition, initially sex hormones were considered to play a major role in the pathogenesis. But further evidence is lacking. There have been only few case reports of dissecting cellulitis of scalp presenting in females in literature. In a 66-patient case series done in National Cheng Kung University, Taiwan, 63 were males

accounting for only 3 females. [1] There are also case reports of 2 girls who presented with dissecting cellulitis of scalp in an Indian study. [4] It is important to suspect its possibility even in female patients, especially, when a patient presents with chronic and recurrent painful nodules or pus discharge, associated with patches of hair loss. It is also important to consider tinea capitis and folliculitis decalvans in the differential diagnosis as these conditions can mimic dissecting cellulitis of scalp. The disease usually is characterized by remissions and frequent exacerbations. Management includes treating the secondary bacterial infection with antibiotics and a long course of oral retinoids, usually lasting for 6 months, to keep exacerbations under check. [5]

In contrast, folliculitis decalvans worsens with oral isotretinoin proving that these two conditions are distinct entities. [6] Oral and intralesional steroids can be used. Latest studies show, management with biologicals like Tumour necrosis factor- alpha inhibitors[7], Adalimumab , Secukinumab showing excellent results and preventing further exacerbations.

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