

Scalp Perifolliculitis Capitis Abscedens et Suffodiens (PCAS) in Ethiopian Child: Single Case Report

Adil H. H. Bashir^{1,*}, Abdel Rahman M. Ramdan², Gamal O. Elhassan^{3,4}, Anil Kumar Mithani⁵,
Khalid O. Alfarouk⁵, Intisar A. Bashir⁶, Abdel Khalig Muddathir⁷

¹Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan

²Faculty of Dentistry, Taibah University, Al-Madinah Al-Munawarah, KSA

³Omdurman Islamic University, Omdurman, Sudan

⁴Unizah College of Pharmacy, Al-Qassim University, Al-Qassim, KSA

⁵Faculty of Medicine, University of Bahri, Khartoum, Sudan

⁶Faculty of Pharmacy, Al-Neelain University, Khartoum, Sudan

⁷Faculty of Pharmacy, University of Khartoum, Khartoum, Sudan

Abstract Perifolliculitis capitis abscedens et suffodiens also known as Perifolliculitis capitis abscedens et suffodiens of Hoffman, Dissecting folliculitis, and Dissecting cellulitis of the scalp. It is an inflammatory condition of the scalp that can lead to scarring alopecia, which begins with deep inflammatory nodules, primarily over occiput, that progresses to coalescing regions of boggy scalp. An eight-year-old Ethiopian male child, resident in Khartoum, Sudan presented with tender progressing fluctuant nodules and alopecia on his scalp for nine months. The lesions often oozed a serosanguinous discharge and occasionally bled. All cultures of the discharge were negative. He had been treated with courses of Azithromycin, Tinidazole, and oral Prednisolone with some improvement. The trial of oral steroids relieved the tenderness and reduced the discharge temporarily. Family history of mild, similar scalp conditions in both younger brothers.

Keywords Perifolliculitis capitis abscedens et suffodiens, Ethiopia

1. Background

Perifolliculitis capitis abscedens et suffodiens (PCAS) is a therapeutically challenging suppurative scalp disease of unknown etiology. Spitzer first described the disease in 1903, and Hoffman named it descriptively in 1907 (suffodiens is from the Latin *suffodio*, meaning to dig under) [1, 2]. As regards of international frequency, no data are available, but the disease is uncommon. It predominantly occurs in black males in their second-to-fourth decade of life (the most common age group affected are those aged 18-40 years), but white persons are also affected, as well cases in women are also reported [3]. The clinical course is chronic and unpredictable with relapses, is not life threatening, can be complicated by Squamous cell carcinoma although the spontaneous resolution may occur. [4, 5]

PCAS can be associated with acne conglobata, hidradenitis suppurativa, and pilonidal cysts, with follicular blockage as the proposed common mechanism. As theretention of material dilates follicles and cause them to rupture. Keratin and organisms from the damaged hair

follicles can initiate a neutrophilic and granulomatous response. Bacterial infection appears to be a secondary event, not an etiologic factor in the pathogenesis [3, 6].

PCAS begins as a simple folliculitis, most often of the vertex and/or occiput, with clusters of perifollicular pustules rapidly followed by abscess and sinus formation. Nodules range from a few millimeters to several centimeters in diameter and may be firm or fluctuant. Seropurulent fluid may be expressed from fluctuant nodules. Lesions at different stages may persist for years, healing with scarring alopecia. PCAS has a strong tendency to recurrence. No systemic symptoms are usually evident.

Vertex and occipital regions of the scalp are sites most often affected, as the main physical signs, depending on the disease stage, are perifollicular pustules, tender nodules (some discharging pus or a jellylike substance), intercommunicating sinuses between nodules, and patchy alopecia with scarring [7]. Shedding hair from the surface of nodules and sparing in between the inflamed areas can be observed. Regional lymphadenopathy is rarely noted. Spondyloarthropathy has been reported in patients with PCAS [8, 9].

The cause is not known. The hypothesis is that the blockage of follicles, retention of contents and subsequent rupture leads to inflammation. Acne conglobata, hidradenitis suppurativa, and pilonidal cysts are frequent concomitant

* Corresponding author:

Derma55@yahoo.com (Adil H. H. Bashir)

Published online at <http://journal.sapub.org/ajdv>

Copyright © 2016 Scientific & Academic Publishing. All Rights Reserved

diseases, often referred to as the follicular occlusion triad or tetrad. Bacterial infection is probably secondary in the course of the disease because most bacteriological cultures are negative. The most frequently isolated pathogens are *Staphylococcus aureus*, *Staphylococcus epidermidis*, and *Staphylococcus albus*. Keratosis-ichthyosis-deafness (KID) syndrome has been reported in association with the follicular occlusion triad in 2 patients [10, 11].

Clinically, dissecting cellulitis can mimic acne keloidalis nuchae, pseudopelade of Brocq, tinea capitis, tufted folliculitis, and discoid lupus erythematosus.

2. The Case

An eight-year-old Ethiopian male, resident in Khartoum, Sudan presented with tender progressing fluctuant nodules and alopecia on his scalp for nine months. The lesions often oozed a serosanguinous discharge and occasionally bled. All cultures of the discharge were negative. He had been treated with courses of Azithromycin, Tinidazole, and oral Prednisolone with some improvement. The trial of oral steroids relieved the tenderness and reduced the discharge temporarily. Family history of mild, similar scalp conditions in both younger brothers.

On examination, flesh-colored tender fluctuant nodules with scarring alopecia were noted on the scalp. The nodules formed intercommunicating sinuses that expressed a serosanguinous discharge when palpated. Lymphadenopathy was tender, detected in posterior triangles regions bilaterally. The remainder of the physical exam was unremarkable.

No blisters are seen. The lesions are **Firm** on palpation.

Nails: No nail dystrophy.

Hair: No Abnormality Detected rather than the loss of hair in affected areas.

Eye: No Abnormality Detected.

Oral mucosa & Lips: No Abnormality Detected.

Face: No facial abnormality detected.

Investigations done:

Skin cultures:

No growth

3. Discussion

Dissecting cellulitis or perifolliculitis capitisabscedens et suffodiens predominantly occurs in African American men 20-40 years of age. It can rarely occur in males of other races as recorded in this case of 8 years old Ethiopian child of African origin. Familial cases have been reported, where his two younger brothers suffer from themilder similar condition. Medical therapies include antibiotics, antibiotic soaps (chlorohexidine, benzoyl peroxide), dapsone, intralesionalkenalog 10-40mg/cc, zinc supplements, tetracycline-type antibiotics and prednisone 40-60mg/day. Here, in this case, had been treated with courses of Azithromycin, Tinidazole, and oral Prednisolone with some

improvement. The trial of oral steroids relieved the tenderness and reduced the discharge temporarily. Dissecting cellulitis remains a difficult condition to treat. Recognition of this condition allows for the early institution of therapy, which is the best chance for effective intervention. New laser therapies seem particularly promising for this recalcitrant condition.

4. Conclusions

Conclusions: The treatment of PCAS usually represents difficulties and frustration for both the patient and the physician.

REFERENCES

- [1] Tsiskarishvili N V, Katsitadze AG, Tsiskarishvili TI. [Perifolliculitis capitisabscedens et suffodiens (case report)]. Georgian medical news. 2012; (205): 19-23.
- [2] Stites PC, Boyd AS. Dissecting cellulitis in a white male: a case report and review of the literature. Cutis. 2001; 67(1): 37-40.
- [3] Ramesh V. Dissecting cellulitis of the scalp in 2 girls. Dermatologica. 1990; 180(1): 48-50.
- [4] Ljubojevic S, Pasic A, Lipozencic J, Skerlev M. Perifolliculitis capitisabscedens et suffodiens. Journal of the European Academy of Dermatology and Venereology: JEADV. 2005; 19(6): 719-21.
- [5] Varshney N, Al Hammadi A, Sam H, Watters AK. Perifolliculitis capitisabscedens et suffodiens in an 18-year-old Aboriginal Canadian patient: case report and review of the literature. Journal of cutaneous medicine and surgery. 11(1): 35-9.
- [6] Mihić LL, Tomas D, Situm M, Krolo I, Sebetić K, Sjerobabski-Masnec I, et al. Perifolliculitis capitisabscedens et suffodiens in a caucasian: diagnostic and therapeutic challenge. Acta dermatovenerologica Croatica: ADC. 2011; 19(2): 98-102.
- [7] Moscatelli P, Ippoliti D, Bergamo F, Piazza P. Guess what. Perifolliculitis capitis abscedens et suffodiens. European journal of dermatology: EJD. 11(2):155-6.
- [8] Chicarilli ZN. Follicular occlusion triad: hidradenitis suppurativa, acne conglobata, and dissecting cellulitis of the scalp. Annals of plastic surgery. 1987; 18(3): 230-7.
- [9] Benvenuto ME, Rebora A. Fluctuant nodules and alopecia of the scalp. Perifolliculitis capitis abscedens et suffodiens. Archives of dermatology. 1992; 128(8):1115-7, 1118-9.
- [10] Boyd AS, Zemtsov A. A case of pyoderma vegetans and the follicular occlusion triad. The Journal of dermatology. 1992; 19(1): 61-3.
- [11] Sivakumaran S, Meyer P, Burrows NP. Dissecting folliculitis of the scalp with marginal keratitis. Clinical and experimental dermatology. 2001;26(6):490-2.