

Chronic Scalp Abscesses Resulting in Dissecting Folliculitis and Alopecia Scarring Requiring Systemic Therapies

**CASE AND ANALYSIS BY CONSUELA BROWN-WITHERSPOON, FNP, DNP
STUDENT**

CASE: Andrew, a 25-year-old African-American male, was assessed at a Texas dermatology clinic because of recurrent worsening of a scalp infection. His visit to the clinic was precipitated by his girlfriend consistently nagging him about his weeping, draining, and foul smelling scalp. The girlfriend's concerns about Andrew's scalp condition increased after he had made several visits to other clinics with no improvement despite therapeutic interventions. So, Andrew began to seek treatment elsewhere, having been coaxed by family, friends, and co-workers to come to this underserved urban dermatology clinic to seek further treatment of his condition.

After taking a thorough history of the client's condition, he started to describe his symptoms that included sometimes reddened, swollen, pus-filled, foul smelling, very painful at times, knots on his scalp that had been worsening over the previous five to six months and were indicative of moderate to severe scalp abscesses. Andrew reported having difficulty working due to the wearing of a hard hat for protection and not being able to sleep well during the night because of the severity of the pain. The patient stated that his appetite had decreased some and his symptoms made him feel like not socializing at times because of the many stares he received. The patient denied any suicidal ideations or any attempts to harm anyone else.

PHYSICAL EXAMINATION

Andrew presented as a well-developed, well-nourished black male in no apparent distress. Physical examination of his eyes was unremarkable, with conjunctiva and lids appearing

normal. Lips, tongue, and gums also appeared normal for a 25-year-old male. There was no evidence of lymphadenopathy. Skin of the hands and nailbeds was within normal limits. Andrew was oriented to person, place, and time and seemed interested in his skin condition, though not severely depressed, anxious, and /or agitated. On his scalp were large, tender, painful, erythematous, subcutaneous nodules, with many of the lesions having ruptured. There was a foul smelling pustular exudates draining from the lesions.

Physical Exam:

General: The patient is a well-developed, well nourished black male in no apparent distress.

Eyes: Conjunctiva and lids appear normal.

ENMT: Lips, tongue, and gums appear normal.

Lymphatic: no evidence of lymphadenopathy in neck.

Extremities: Hands and nails appear normal

Neuro/Psych: Patient is oriented to person, place, and time and seemed interested in his skin condition, although not severely depressed, somewhat anxious, and or agitated.

SKIN: Large tender, painful, erythematous, subcutaneous nodules on the scalp. Many of the lesions have ruptured. There is weeping of a foul smelling pustular exudate noted.

DIAGNOSIS:

The following diagnoses were made:

Abscess, acute/chronic NOS, 682.9

Alopecia, 704.09

Dissecting cellulitis, scalp, 682.8

Pruritus general, 698.9

Perifolliculitis, scalp 686.00

DIFFERENTIAL DIAGNOSIS:

Cellulitis 704.8

Furuncle 680.9

DISCUSSION

An abscess is an infection characterized by a collection of pus underneath certain portions of the skin. Streptococcus and Staphylococcus aureus are the most common bacteria causing abscesses of the skin. Cracks and injury to the skin is the usual pathway of entry for the specified bacteria. Fever may be a direct result of the bacteria and the areas of the affected skin usually become swollen, red, tender, and warm. Most abscesses resolve quickly once appropriately treated.

Dissecting folliculitis is a rare, chronic, and suppurative disease, usually affecting African American adult males, causing alopecia and scarring of the scalp (Sivakumaran, Meyer, & Burrows, 2001). Many dermatologist and/or pathologist receive little to no training in the evaluation of this hair disease (Sperling, 2001).

Folliculitis can be characterized by itchy, painful, discharging, and crusting papules (Hickin, 2008), that are the result of a bacterial infection in the designated area of the skin. It is most and commonly noted in the nuchal area (nape of the neck) in African-American skin. Management is with oral antibiotics.

Dissecting folliculitis fits into the group of principal neutrophilic cicatricial alopecia (Otberg, Kang, Alzolibani, & Shapiro, 2008). Male patients are almost exclusively affected by this bacterial infection and usually present with boggy confluent nodules. The hallmark of this disease is unified sinus tracts, releasing purulent drainage. Andrew was initially diagnosed by his presenting history. Whereas oral antibiotics, topicals, and intralesional or systemic steroids are

the present treatments of choice, guidelines recommend that systemic antibiotics are indicated if the disease process is recurrent or severe (Sivakumaran et al., 2001).

Dissecting folliculitis is also known as perifolliculitis capitis abscedens et suffodiens (Hoffman, n.d.), dissecting perifolliculitis, and perifolliculitis capitis (Wu, Otberg, McElwee, & Shapiro., 2008). Dissecting cellulitis has an unknown etiology, however there are three associated causes noted within the literature: infection, follicular occlusion, and immune cell-mediated chronic inflammation.

TREATMENT/TEST/LABS

- Vancomycin 1 gram IV Q24 x10 days
- Labs: Vancomycin peak and trough with 3rd dose.
- 08/31/2009
- **LAB:**
- Vancomycin, Trough 2.0 L Reference Range 5.0-10.0mg/L
- 09/01/2009
- Increase Vancomycin to 2 grams IV Q24h for 7 days
- **LAB:** Vancomycin peak and trough with 3rd dose.
- 09/5/2009
- LAB: Vancomycin Trough 3.9 Reference Range 5.0-10.0mg/L.
- D/C Vancomycin : pt not reaching therapeutic levels.
- Start cubicin 6mk/kg IV x 7 days
- Pt wt: 230lbs
- T.O. to Arlington infusion nurse.
- **LAB:** Creatine kinase Q Monday while on Cubicin.

- 09/08/2009
- **Labs:** Creatine kinase, total 143: Reference Range 44-196 U/L.
- Spoke with infusion nurse who stated that pt is now beginning to have decreased drainage with the current therapy, request to continue therapy for another 5 days; PICC may be discontinued at patients request or may continue throughout therapy treatment, T.O. (telephone order).
- Continue Cubicin 6mg/kg for 5 days.
- Spoke with Dr. Rogers, the infusion therapy medical doctor advised that patient (pt) was getting better, but needs to add Solumedrol to decrease the inflammation.
- **MEDICATIONS:**
- Solumedrol 125 mg IVP x 3 days
- Continue Cubicin 6mg/kg as ordered.
- **Labs:** Creatine kinase, Total Q Monday while on Cubicin, T.O. to infusion nurse.
- **The patient completed his treatment of Cubicin on 09/12/2009. The PICC line was removed without difficulty, hub intact per infusion nurse.**
- **09/14/2009-pt returned for office visit.**
- **The pt is doing much better, however, the problem remains moderately severe, but has improved and the patient has been responsive to treatment. Many of the lesions have ruptured and there is less weeping of pustular exudates.**

10/6/2009

- I spoke with patient today as this ends another seven days of IV therapy, patient states he is doing much better, but thinks he should continue with medicines until clear.

- I then proceeded to call the infusion center and spoke with the medical doctor; he advised of the same, pt is doing well, but should continue with the current therapies, also advised to add Rocephin IV to current therapies, orders faxed to infusion nurse to continue therapy.

- **Medication Orders:**

- Solumedrol 125mg IV Q24h x 7 days
- Cubicin 6mg/kg IV Q 24 h x 7 days
- Rocephin 2gm IV Q24h x 7 days

- **Lab orders:**

- Creatine kinase Q Monday while on Cubicin IV.

10/19/2009

- **Labs:** Creatine kinase, 113

- **Medication Orders:** Continue medications as ordered

- Solumedrol 125mg IV Q24h x 7 days
- Cubicin 6mg/kg IV Q 24 h x 7 days
- Rocephin 2gm IV Q24h x 7 days

- **Lab orders:**

- Creatine kinase Q Monday while on Cubicin IV.

10/30/2009

- Lab: Creatine kinase, 130

- Today, I spoke with the infusion nurse who reported that the patient is doing well; at present there are no signs/symptoms of active drainage, pt advised to make follow-up with clinic office for evaluation the first week of November, 2009.

CASE CONCLUSIONS

Per conversation with infusion nurse and medical doctor overseeing this patient's intravenous therapy, Andrew had a positive response to Cubicin, with Rocephin and Solumedrol. His symptoms abated, and the DNP-advanced practice nurse will see patient in clinic this week for evaluation of chronic abscesses causing dissecting cellulitis and alopecia scarring of the scalp.

There is no permanent eradication of this relapsing condition. Systemic antibiotics often produce only a brief response (Powell et al., 1999). Evidence- based medicine proves that corticosteroids show signs of inflammatory suppression with no lasting effects.

References

Hickin, L. (2008). Recognising common scalp conditions. *Practice Nurse*, 36(10),

25-28.

Hoffman, E. (n.d.). Perifolliculitis capitis abscedens et suffodiens: Case

presentation. *Dermatologica* 1908; 15: 122-3.

Otberg, N., Kang, H., Alzolibani, A., & Shapiro, J. (2008). Folliculitis

decalvans. *Dermatologic Therapy*, 21(4), 238-244.

Powell, Dawbter, & Gatter. (1999). Folliculitis decalvans including tufted folliculitis:

Clinical, histological and therapeutic findings. *British Journal of Dermatology*, 140(2),

Sivakumaran, S., Meyer, P., & Burrows, N. (2001). Dissecting folliculitis of the scalp with marginal keratitis. *Clinical & Experimental Dermatology*, 26(6), 490-492.

Sperling, L. (2001). Scarring alopecia and the dermatopathologist. *Journal of Cutaneous Pathology*, 28(7), 333-342.

Wu, W., Otberg, N., McElwee, K., & Shapiro, J. (2008). Diagnosis and management of primary cicatricial alopecia: Part II. *Skinmed*, 7(2), 78-83.