David Geffen School of Medicine | UCLA Health

Scarring Alopecia

Carolyn Goh, MD, FAAD
Associate Clinical Professor of Medicine-Dermatology
UCLA David Geffen School of Medicine

What makes scarring alopecia challenging?

- It is hard for patients and clinicians both
- The unknown of the root cause
- Limited effective treatments
- Hair loss is permanent and treatment is aimed at prevention

However,

- Fairly limited possible diagnoses (they can be lumped)
- Limited effective treatment options, a lot of overlap
- Acceptance that sometimes we never quite understand WHY something happens is key.

Challenges (and how to overcome them)

- Correct diagnosis
  - Examine closely – dermoscopy may be helpful
  - Consider biopsy, but biopsy in the right place – know your pathologist; consider re-biopsying if needed
    - I like to review my slides personally
- Monitoring for effectiveness of treatment
  - Take pictures
  - Follow symptoms if they are there (including shedding, itching, pain)
- Time management
  - Very difficult to manage sometimes
  - Use the patient advocacy groups and support groups
  - Handouts are helpful too

Objectives

- Define scarring alopecia
  - Primary vs. secondary
- Discuss an approach to accurate diagnosis of scarring alopecia
- Present cases
- Review management of scarring alopecia

Scarring alopecia

- Permanent loss of hair (a “trichologic emergency”)
  - Most are indolent, but rapid progression can occur unexpectedly
- Primary scarring alopecia is due to a neutrophilic, lymphocytic, or mixed inflammatory infiltrate
- Secondary scarring alopecia may be due to:
  - Trauma or tumors (benign or malignant).
  - Morphea, late tinea capitis, and late traction or trichotillomania are considered secondary scarring alopecias as well

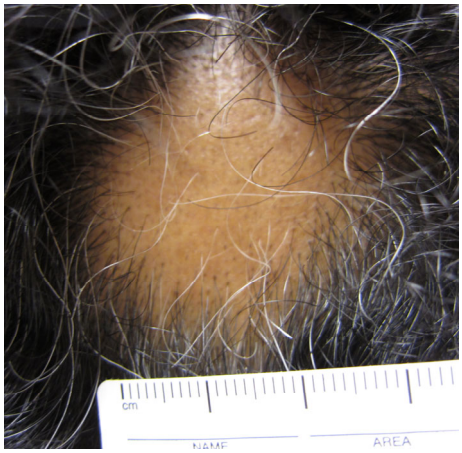
Scarring alopecia - primary

- Lymphocytic
  - Central centrifugal cicatricial alopecia
  - Chronic cutaneous lupus erythematosus
  - Lichen planopilaris (frontal fibrosing alopecia, fibrosing alopecia in a pattern distribution, Graham-Little syndrome)
  - Alopecia mucinosa
  - Keratosis follicularis spinulosa decalvans
- Neutrophilic
  - Folliculitis decalvans
  - Dissecting cellulitis of the scalp
- Mixed
  - Acne keloidalis
  - Erosive pustular dermatosis of the scalp

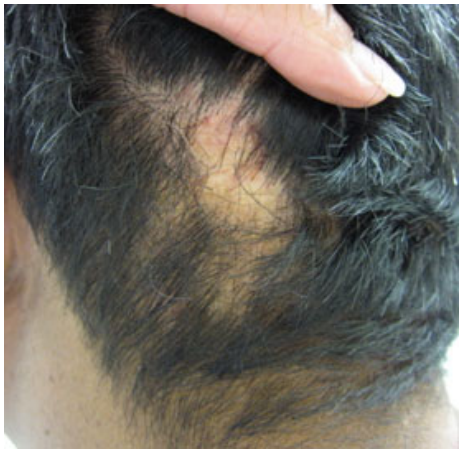
Diagnosing alopecia

- History and physical
  - Timing/duration, presence of increased shedding, pattern of loss, **associated symptoms**
  - Scarring or non-scarring – dermoscopy may be helpful
  - Hair pull test – may not be markedly positive, but anagen hairs on gentle pull
- Histopathology
  - Two **4mm** punch biopsies, one for horizontal sectioning and one for vertical sectioning. Sometimes direct immunofluorescence, sometimes tissue culture
  - Site of biopsy matters – try for an active edge, perhaps more of a subacute location than a very active location

Non-scarring



Scarring



David Geffen School of Medicine

UCLA Health

Table 4.1 Template for a "Scalp Biopsy Report"

Accession number:
Date:
Patient name/age/sex/race:
Submitting physician:
Clinical impression:
Macroscopic description: biopsy diameter/location on scalp: *e.g., 4 mm punch biopsy, vertex of scalp*
Microscopic description of vertical sections:
Microscopic description of horizontal sections:
Terminal anagen hairs:
Terminal catagen/telogen hairs:
Vellus hairs:
TOTAL hairs (terminal plus vellus, all phases):
Telogen count (terminal telogen hairs÷total terminal hairs):
Terminal: vellus ratio: *e.g., 3:1*
Inflammatory infiltrate (type and location): *e.g. upper follicle vs. lower follicle/bulb; lymphohistiocytic vs. neutrophilic; vacuolar interface type vs. no significant interface change; mild vs. dense*
Fibrosis or follicular scars (columns of connective tissue at the site of former follicles):
Additional features noted: *e.g., stelae, solar elastosis, follicular distortion, pigment incontinence, naked hair shafts*
Comments:
DIAGNOSIS:
Consultants:
Pathologist's signature _____

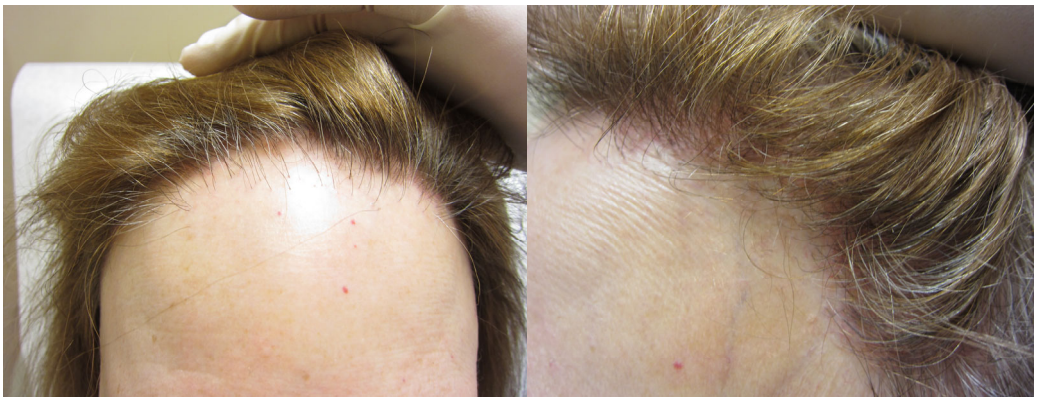
Sperling LC et al, An Atlas of Hair Pathology with Clinical Correlations. 2nd Ed. Informa healthcare, 2012.

David Geffen School of Medicine

ealth

Case 1

- 65 year old woman complains of 5 years of thinning hair especially over the front of her scalp. There may be occasional pruritus, no pain or burning. There is no appreciable increase in shedding.



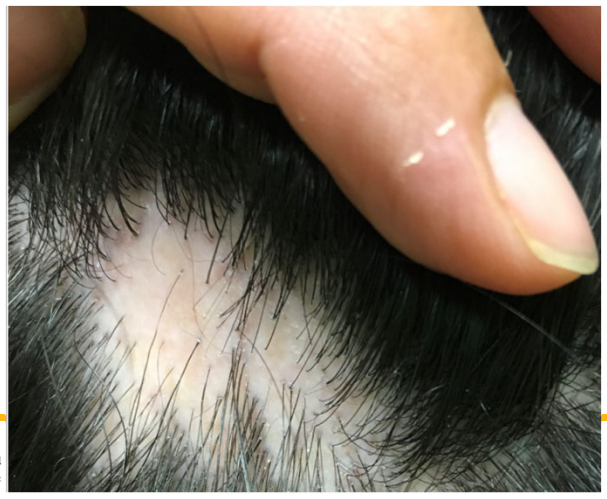
David Geffen School of Medicine
UCLA Health

Frontal fibrosing alopecia

- Likely variant of lichen planopilaris (identical path)
- Typically in postmenopausal women, though cases of younger women and men do occur
- Increasing in incidence
- Unlike LPP, often without symptoms
- May lose body hair as well
- Treat with topical and/or intralesional corticosteroids,5 alpha reductase inhibitors, topical calcineurin inhibitors, tetracyclines, hydroxychloroquine, methotrexate, cyclosporine, mycophenolate mofetil, or pioglitazone

Case 2

- 15 year old boy with patchy alopecia gradually worsening over many years. Sometimes itchy.



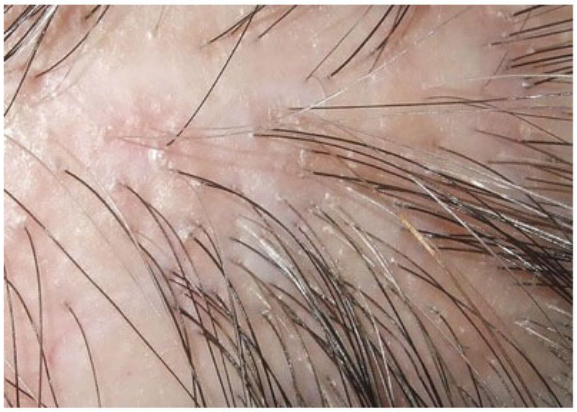


Figure 25.9 Higher magnification of Figure 25.8 detailing the perifollicular hyperkeratosis, subtle perifollicular erythema, and loss of follicular markings.

David Geffen School of Medicine

UCLA Health

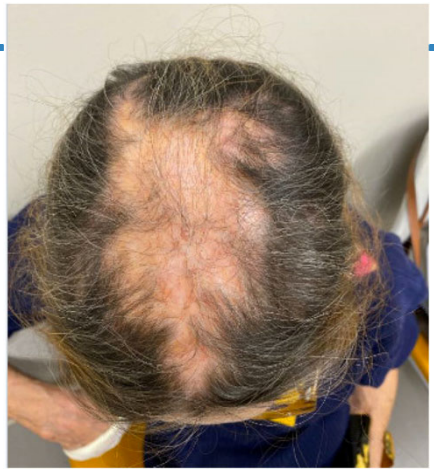
Figure 25.10 Dermoscopic image of lichen planopilaris showing diminished follicular ostia, perifollicular scale, and blue-grey dots that sometimes resemble targets. *Source*: Image courtesy of Antonella Tosti, M.D.

David Geffen School of Medicine

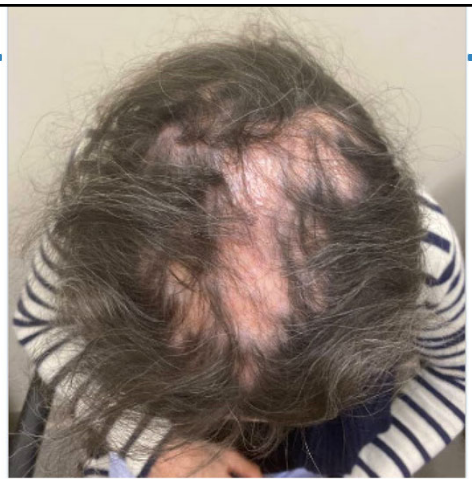
UCLA Health

Lichen planopilaris

- Inflammatory, lymphocyte-predominant primary cicatricial alopecia
- Up to 50% of patients may have lichen planus on body or in mouth
- Pruritus and tenderness are more common
- Can be refractory to treatment
- Treatment includes topical and intralesional corticosteroids, tetracyclines, hydroxychloroquine, cyclosporine, methotrexate, mycophenolate mofetil, pioglitazone, janus kinase inhibitors. Cetirizine and omalizumab are newer options. Low dose naltrexone also. Apremilast as well.
- Pearl: discontinuation of intralesional corticosteroids often results in a flare

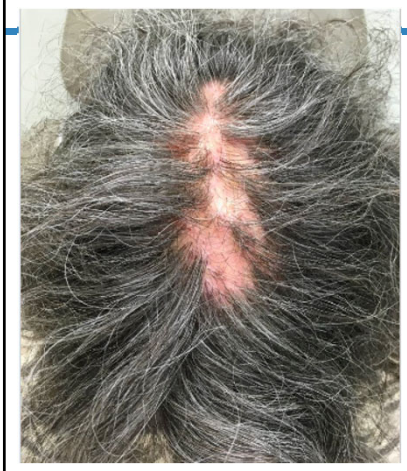


11/2020

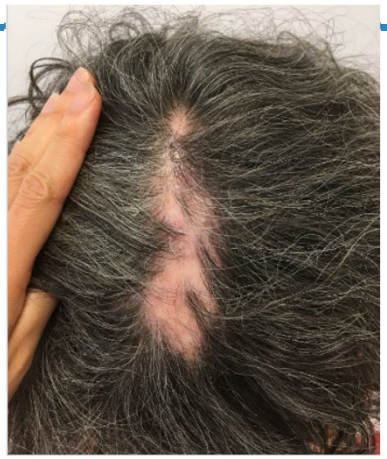


1/2022

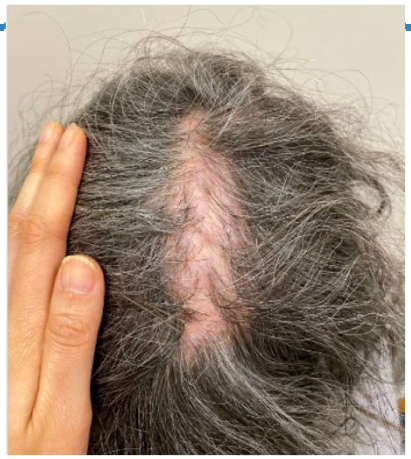
Pulsed prednisone, hydroxychloroquine, doxycycline, methotrexate (d/c'ed), mycophenolate mofetil, topical tacrolimus, corticosteroids, past intralesional corticosteroids.



2017



2019



2021

hydroxychloroquine, methotrexate, cetirizine, ILK, topicals

Failed doxy, mino, pioglitazone

Case 3

- 54-year-old black woman with 10 years of hair loss with occasional itching. Mostly thinning, not much shedding.

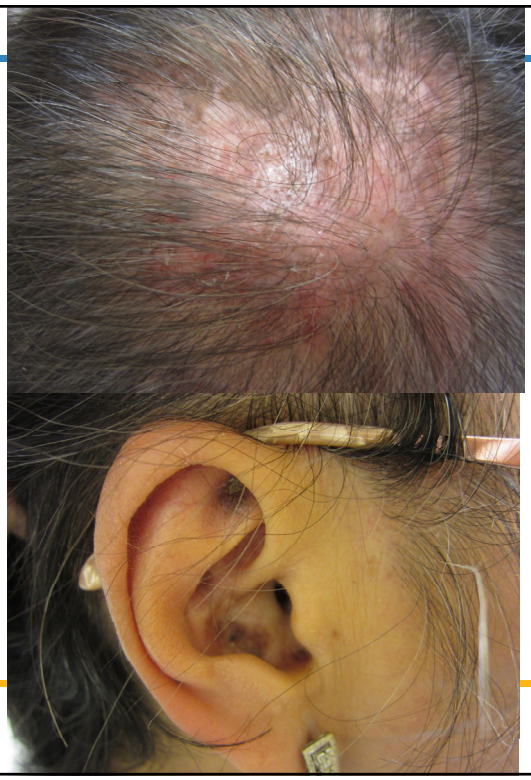
Central centrifugal cicatricial alopecia

- Thought to affect at least 50% of African-American women by the age of 50
  - Some familial cases reported
  - Can happen in men and non-black individuals
- Unclear association with hair care practices, but often seen with traction alopecia
  - Genetic association has been found
- Lymphocyte-predominant on path and can't tell the difference from LPP
- Treat with topical steroids, intralesionals, tetracycline antibiotics, decrease harsh hair care practices as is possible; newer: topical metformin
- Pearl: systemic treatment not typically necessary

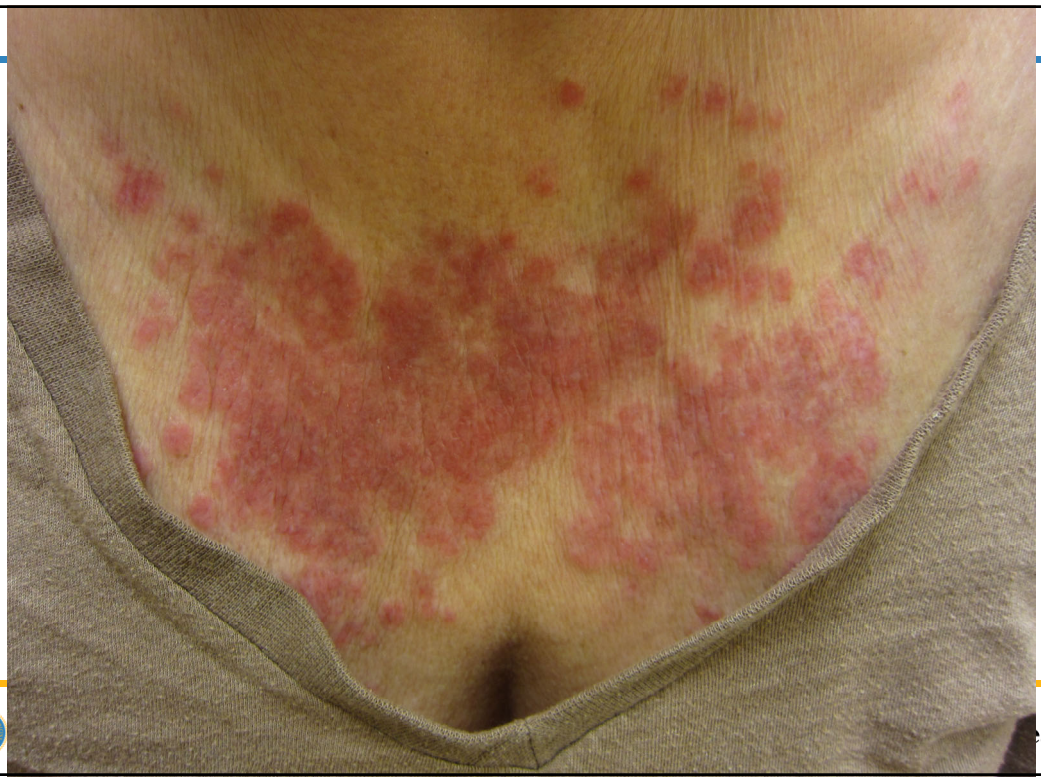
David Geffen School of Medicine
UCLA Health

Case 4

- 50-year-old woman with tenderness and pruritus and hair loss for 6 months.
- She also gets rashes on her chest and arms.

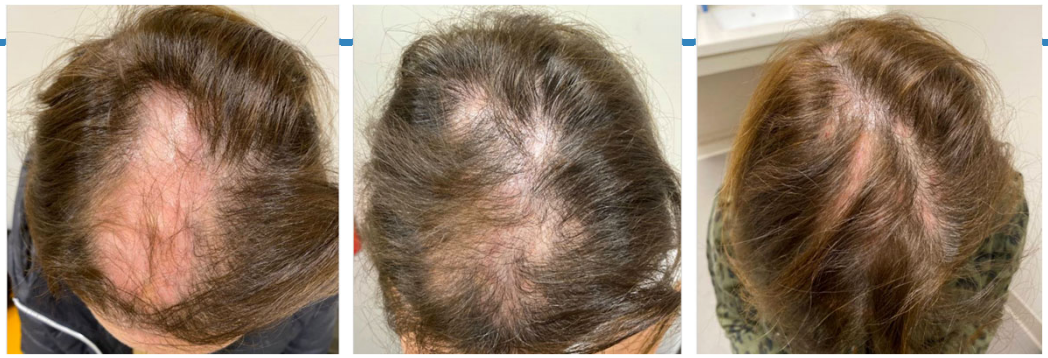


David Geffen School of Medicine
UCLA Health



Chronic cutaneous lupus

- Erythema, atrophy, follicular plugging, mottled hyper and/or hypopigmentation
- May see classic discoid lesions, but not necessarily
- DIF may be helpful – needs to be an active lesion, ~2-3 months old, no treatment for 3 weeks.
- Treat with topical, intralesional steroids; hydroxychloroquine, other immunosuppressants if needed.

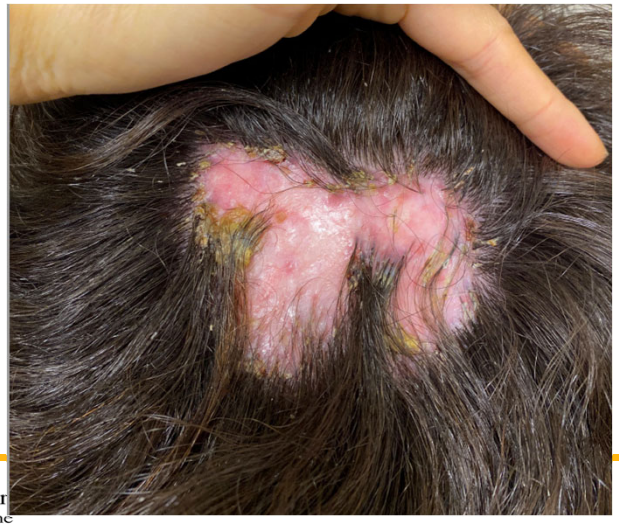


1/2020 7/2020 3/2021

39 year old female
Hydroxychloroquine 300 mg daily
Monthly intralesional injections of triamcinolone
Clobetasol shampoo 1-2 times a week
Mometasone solution as needed
Strict sun protection

Case 4

- 19 year old man with 5 year history of itchy plaque on top of scalp.

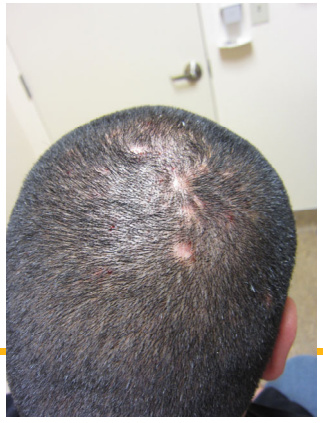


Folliculitis decalvans

- Neutrophilic primary cicatricial alopecia
- Staph aureus often found on culture
- May be an early version of CCCA or LPP or other ciciatricial alopecias
- Male predominance
- Treat with topical and/or intralesional corticosteroids, topical antibiotics, antiseptic/antimicrobial cleansers, oral antibiotics (tetracyclines or clindamycin/rifampin), isotretinoin, dapsone (topical or oral), zinc
- Pearls: topical dapsone and topical zinc pyrithione have provided relief for some of my patients

Case 5

- 33 year-old man with very tender bumps on his head with hair loss for about one year.



Perifolliculitis capitis abscedens et suffodiens (dissecting cellulitis of the scalp)

- Boggy, VERY TENDER, suppurative nodules/sinus tracts
- Part of the follicular occlusion tetrad
- Treat with oral antibiotics, retinoids, TNF inhibitors, and/or intralesional corticosteroids
- Difficult to control

Treatment of scarring alopecia

- Goals of treatment are to:

1. Reduce symptoms of pain and itch
2. Slow progression of hair loss
3. Maintain the hair that is present as much as possible (treat underlying androgenetic alopecia)

- Regrowth sometimes, but uncommon and should not be the primary goal
- Multiple treatments/medications often necessary
- It may take 6 months or more to determine any benefit

Treatment of scarring alopecias

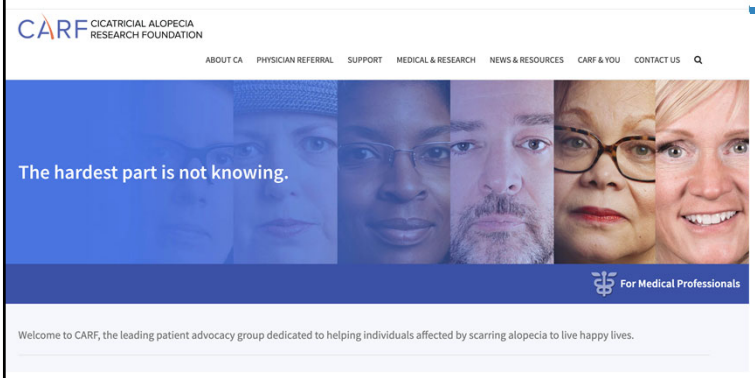
- Lymphocytic
  - Topical and/or intralesional corticosteroids – 10 mg/cc
  - Topical calcineurin inhibitors – compound in solution, ointment may work for curly hair
  - Doxycycline or minocycline 100 mg 1-2 times daily
  - Hydroxychloroquine 200-400 mg daily (5 mg/kg/day)
  - Pioglitazone 15 mg daily
  - Mycophenolate mofetil, methotrexate, or cyclosporine; possibly jak inhibitors
  - Finasteride 5 mg daily or dutasteride 0.5mg ranging from once weekly to once daily for FFA
  - Topical metformin solution or cream 10% (compounded), cetirizine, omalizumab, apremilast, low dose naltrexone (1.5-4.5mg)
  - Treat underlying non-scarring alopecia as well. (minoxidil, platelet rich plasma, etc.)

Treatment of scarring alopecias

- Neutrophilic
  - Doxycycline or minocycline 100 mg twice daily
  - Clindamycin and rifampin 300 mg twice daily x 10 weeks.
  - Other antibiotics (ciprofloxacin, trimethoprim-sulfamethoxazole, etc.)
  - Topical clindamycin
  - Topical and/or intralesional corticosteroids 10-40 mg/cc
  - Surgical excision sometimes
  - Isotretinoin or topical retinoids
  - TNF inhibitors (for dissecting cellulitis)
  - Dapsone

Summary

- Cicatricial (scarring) alopecias are a trichologic emergency
- Accurate diagnosis is important for treatment, though treatment options overlap and are similar across diagnoses
- Goals of treatment are to slow progression of disease and manage patient's symptoms



www.carfintl.org

Thank you!

Feel free to email with questions:
cgoh@mednet.ucla.edu

David Geffen School of Medicine

UCLA Health

David Geffen School of Medicine

UCLA Health