

# Scarring Alopecia

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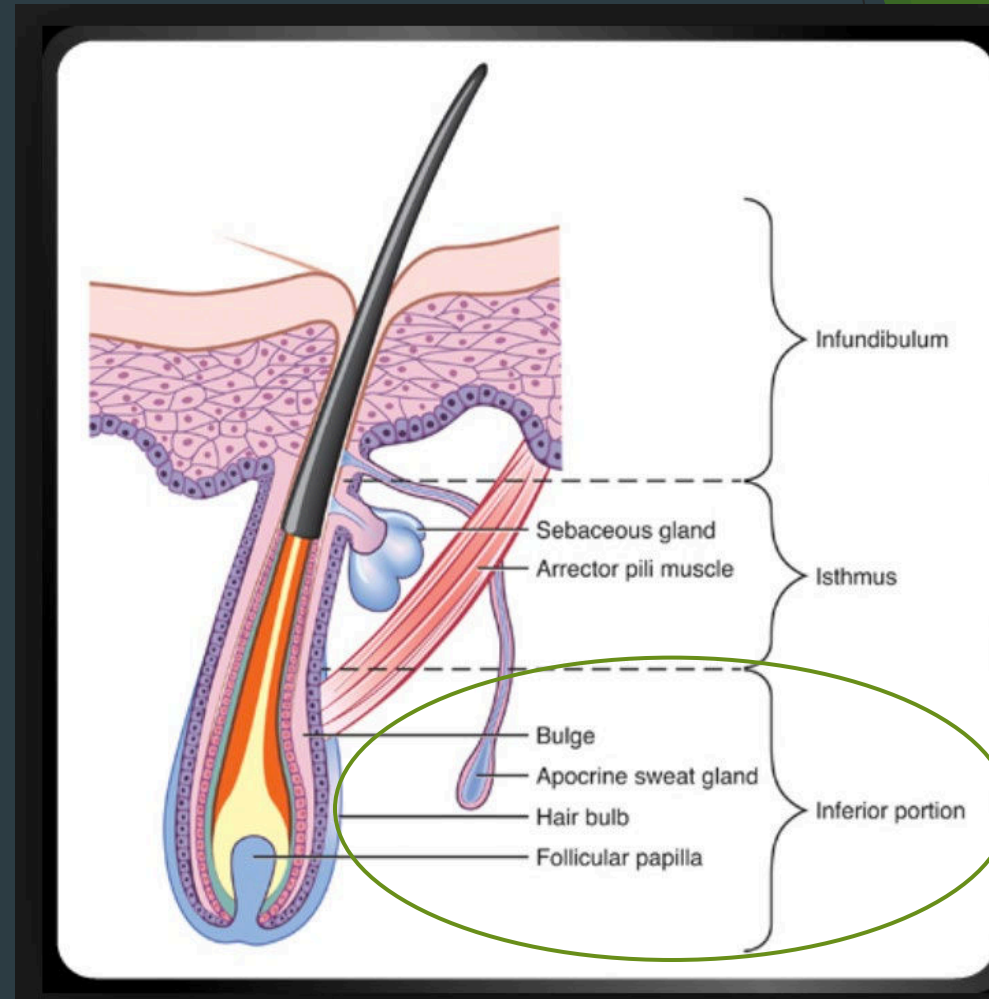
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# Cicatricial Alopecia

- ▶ Characterized by loss of sebaceous glands and stem cells leading to permanent irreversible alopecia
- ▶ Includes lichen planopilaris, folliculitis decalvans, discoid lupus, dissecting cellulitis, central centrifugal cicatricial alopecia



# Lichen planopilaris

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Inflammatory form of primary scarring alopecia that occurs predominately in women

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Characterized by follicular hyperkeratosis, perifollicular erythema, and loss of follicular ostia. Patients also report loss of body hair

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FFA is characterized by progressive band-like scarring alopecia of the frontal hairline that usually affects middle-aged women.



# Frontal fibrosing alopecia

- ▶ Subtype of lichen planopilaris
- ▶ Characterized by slow recession of the frontal and bitemporal hairline
- ▶ Often associated with loss of body hair
- ▶ Measurements: Glabella to frontal hairline; lateral canthus to temporal hairline (or lonely hair)



# Treatment approach to FFA and LPP

## First line therapies

- Hydroxychloroquine
- Finasteride (post-menopausal women)
- Topical anti-inflammatory: high potency topical steroid LPP; topical calcineurin inhibitor FFA

## Additional Therapies

- Oral Pioglitazone
- Oral isotretinoin
- Oral minoxidil (for concomitant AGA)- avoid topicals
- Methotrexate
- Mycophenolate Mofetil
- JAK inhibitors?

# FFA Treatment Pitfalls

- ▶ **Intralesional Kenalog is often disappointing**
  - ▶ DO NOT use 10mg/cc in these patients due to risk of atrophy
- ▶ **All pink scalp is not active disease**
  - ▶ In patients receiving ILK + high potency topical steroids, it is not often to see widespread telangiectasias
  - ▶ Pink scalp that is easily blanchable is not active disease. Look for erythema that hugs the follicular ostia
- ▶ **Avoid topical minoxidil**
  - ▶ Patients are often easily koebnerized
  - ▶ Opt for oral minoxidil instead
- ▶ **Calcineurin inhibitors are preferred over high potency topical steroids**
  - ▶ Vascular prominence is a tip-off to disease in the causal observer and persists for years



# Chronic Cutaneous Lupus Erythematosus (DLE)

Presents with erythema, epidermal atrophy, dilated plugged follicular ostia

Can differentiate from acute SLE of the scalp by presence of hypo and hyperpigmented atrophic plaques

Only about 10% of patients will develop SLE

Early treatment is key! Intermediate stage exists in which hair can be recovered and is not truly lost permanently

Treatment includes topical and intralesional corticosteroids, hydroxychloroquine, MMF, MTX

# Visit 1

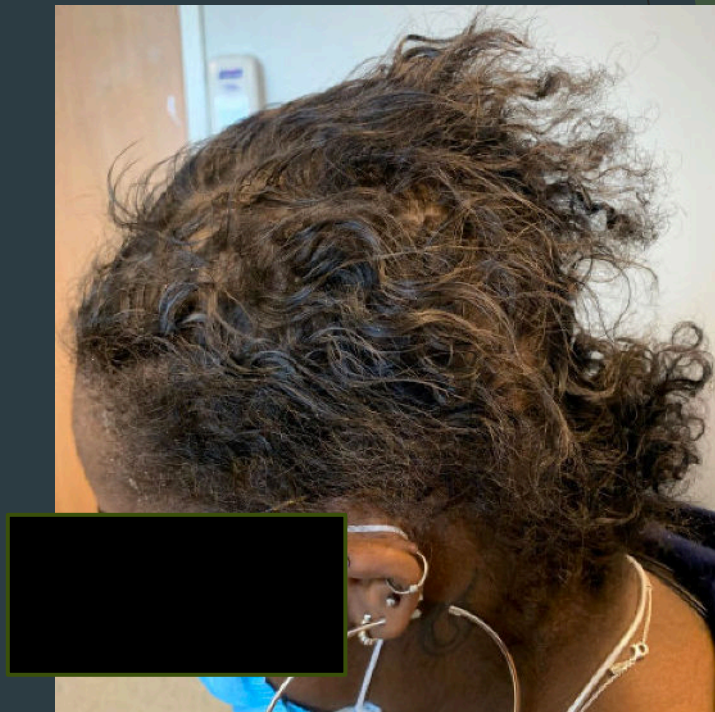




## Visit 2



# Visit 3



# Acute Lupus Alopecia

- ▶ Closely associated with severity of systemic disease
- ▶ Presents with diffuse thinning with no additional scalp changes or inflammation
- ▶ Can confirm with biopsy
- ▶ Typically autoimmune labs are SEVERELY abnormal
- ▶ In Black patients, acute lupus alopecia (and alopecia areata incognito) will change the curl pattern

International Journal of  
**Dermatology**



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## Diseases that turn African hair silky

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First published: 04 December 2012 | <https://doi.org/10.1111/j.1365-4632.2012.05556.x> | Citations: 8

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Conflicts of interest: The author declares no conflicts of interest.

# Central Centrifugal Cicatricial Alopecia

- Lymphocytic primary cicatricial alopecia that most commonly affects women of sub Saharan African descent
- Hair loss typically begins at the vertex and progresses outward in an insidious, centrifugal manner
- Link to hairstyling practices is unclear but may be an aggravating factor
- Increased prevalence of diabetes, fibroids



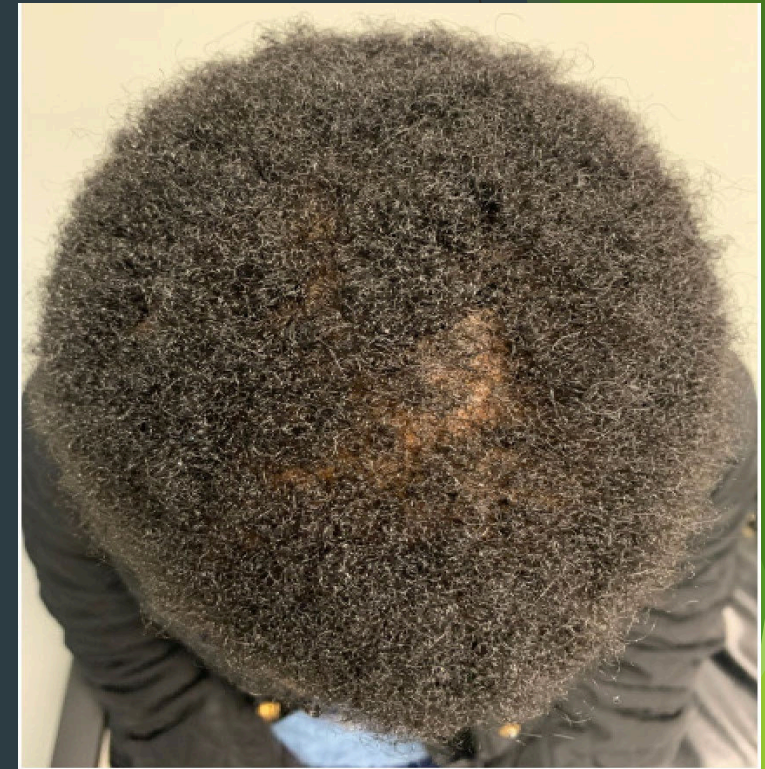
# Current Therapies for CCCA

- ▶ Topical and intralesional Steroids
- ▶ Oral antibiotics if evidence of inflammation
- ▶ Minoxidil if evidence of concomitant androgenetic alopecia
- ▶ 2<sup>nd</sup>, 3<sup>rd</sup> line therapies: topical metformin, hydroxychloroquine
- ▶ Healthy hair care practices (!!!)

# Consult for CCCA



ILK + Doxy for 3 years with no improvement



No prescriptions, no ILK, 5 months of healthy hair routine

# Acquired Trichorrhhexis Nodosa

- ▶ ATN is recurrent hair breakage that occurs as a result of damaging hair practices
- ▶ Common culprits include chemical relaxers, thermal styling and hair coloring
- ▶ Patients will often complain of lack of hair growth
- ▶ Can involve all parts of the scalp but nape of the neck is often affected
- ▶ In severe cases, patient can note breakage so severe that it exposes scalp

# Sample Hair Care Regimen for Damaged Curly Hair

- ▶ Apply protein treatment to dry or damp hair. Cover with shower cap or heating source for 30 minutes.
- ▶ Wash hair once weekly with sulfate free shampoo.
- ▶ Deep condition with every shampoo. Follow deep conditioning with moisturizing rinse-out conditioner.
- ▶ Add leave in conditioner after washing, at least 3x/week.
- ▶ End washing session with light oil (argan, grapeseed, olive, etc).
- ▶ Remind you of anything?
  - ▶ Soak and Smear



# Platelet rich plasma use in cicatricial alopecia

January 31,  
2024

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# DERMATOLOGIC SURGERY

## Use of Platelet-Rich Plasma in Cicatricial Alopecia

Platelet-rich plasma (PRP) is an autologous preparation of concentrated plasma consisting of platelet concentrations up to 7 times higher than normal plasma and is an innovative therapy used for hair restoration.<sup>1</sup> Although PRP has been used in the treatment of noncicatricial alopecias, its efficacy in the management of primary cicatricial alopecias (PCAs) has yet to be evaluated.<sup>2</sup> Primary cicatricial alopecias, such as lichen planopilaris (LPP) and central centrifugal cicatricial alopecia (CCCA), are characterized by peribulbar lymphocytic inflammation that eventually leads to destruction of the hair follicle.<sup>3</sup> Treatment options are varied among the distinctive forms of scarring alopecias with the exception of the use of topical and intralesional steroids, which are used regardless of PCA type.<sup>3</sup> These medications are often considered first-line therapies for PCAs because of their anti-inflammatory effect as well as their ability to reduce collagen synthesis and fibroblast proliferation.<sup>4</sup> Like steroids, PRP is believed to have both an anti-inflammatory effect and an ability to remodel scar tissue.<sup>5</sup> The role of platelet-derived growth factor (PDGF) in wound healing, angiogenesis, and tissue remodeling serves as the basis for its use in dermatology for treatment of scars, skin rejuvenation, and ulcers.<sup>1</sup> Platelet-rich plasma is rich in growth factors

such as PDGF, vascular endothelial growth factor, and epidermal growth factor.<sup>5</sup> Although very few studies have analyzed the impact of PRP on PCAs, several characteristics, including its ability to reduce inflammation and attenuate scar formation, suggest that it may be an effective treatment for PCAs.<sup>1,5</sup> In this case series, we highlight 2 cases of PCA successfully treated with PRP.

### Methods

#### *Preparation of Platelet-Rich Plasma*

Both patients were seen for evaluation at the Johns Hopkins Dermatology clinic. Plasma was obtained using the Selphyl platelet-rich fibrin matrix system. Blood was obtained using a 21-gauge butterfly needle to obtain 9 ccs of whole blood. The blood was drawn into a tube containing sodium citrate, which served as an anticoagulant. This was then transferred to a centrifuge where it was spun at 1,100g for 6 minutes yielding 4.0 to 5.0 cc of plasma per patient. The resultant plasma was then transferred to a second tube containing 0.5-M calcium chloride to activate the clotting cascade and the release of growth factors.

- ▶ Summarized the cases of two patients with scarring alopecia-LPP and CCCA
- ▶ Both failed standard treatments and had robust response to PRP after completing a total of three session

Dina Y, Aguh C. Use of Platelet-Rich Plasma in Cicatricial Alopecia. Dermatologic Surgery. 2019 Jan 31.

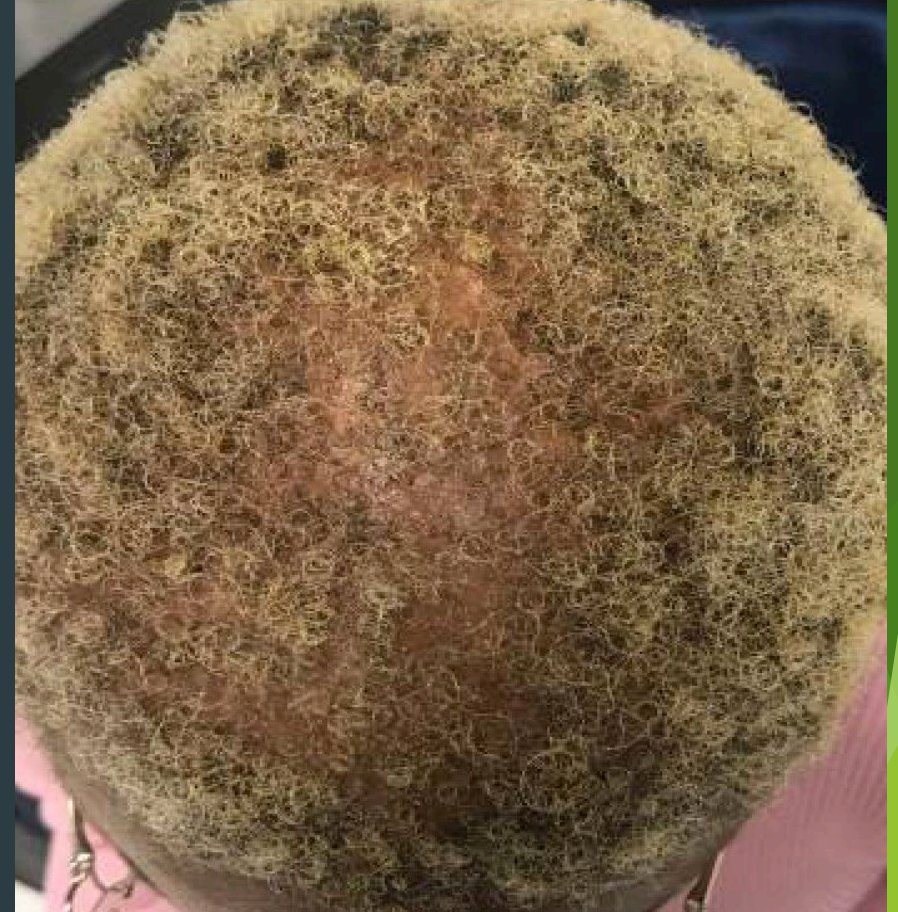
# My PRP Protocol

- ▶ Offered to patients who have failed standard treatments
- ▶ Recommend continuation of minoxidil (and all other topical medications) during treatment if using already
- ▶ Session: 3-4 treatments spaced four weeks apart.
- ▶ Discuss discontinuation of treatment with patient if no improvement seen after two sessions

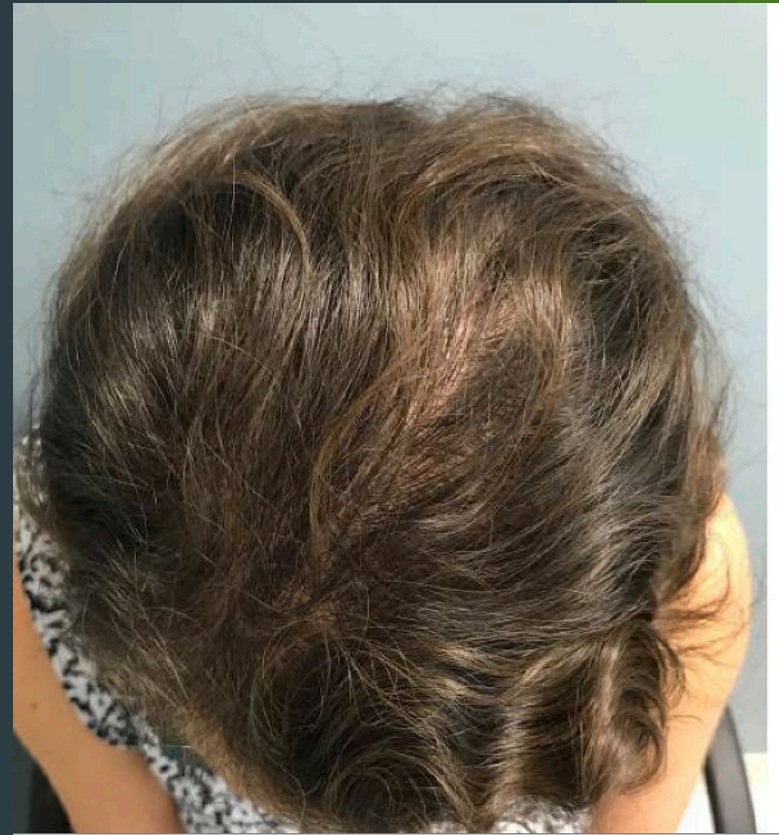
# Case 1- Before & After



## Case 2- Before & After



# Other Uses in Cicatricial Alopecia-LPP



# Other Uses in Cicatricial Alopecia-FFA

