

ADC 101st Annual Conference

APRIL 19-21, 2024 | HERSHEY LODGE, HERSHEY, PA



Central Centrifugal Cicatricial Alopecia: An Update



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DISCLOSURES

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- **Board Member or Executive:** Mercer Strategies, Board of Directors
- **Receipt of Royalty:** McGraw-Hill - book royalties
- **Contracted Research:** Allergan Aesthetics, Concert Pharmaceuticals, Cromapharma GmbH, Eli Lilly and Company, Pfizer, Inc.
- **Ownership Interest:** Armis Scientific, GloGetter, Piction Health

OBJECTIVES

Central Centrifugal Cicatricial Alopecia

- Update of Clinical Subtypes
- CCCA in Male Patients
- Comorbidities in Patients with CCCA
- Delphi Consensus Therapeutic Recommendations

Nomenclature

Hot Comb Alopecia

LoPresti et al. described 51 African American women who **straightened their hair with a hot comb and petrolatum** with vertex alopecia that expanded peripherally

1968

1992

2001

CCCA

North American Hair Research Society used the descriptive term CCCA. Group agreed **follicular degeneration is due to a primary insult against the hair follicle** and is not just a consequence of an adjacent process.

Follicular Degeneration Syndrome

Sperling and Sau studied 10 African American women with central scarring alopecia who did **not** use hot comb and petrolatum for hair straightening. Hypothesized that the **inner root sheath degenerates prematurely**, leading to migration of the hair shaft through the outer root sheath. **Injury was due to external injury from chemicals applied and hairstyles.**

Central Centrifugal Cicatricial Alopecia



- Chronic progressive alopecia primarily in women of African descent
- Hair loss in the crown or vertex of the scalp with symmetric expansion with active disease at periphery
- Occult vertex breakage may be a presenting and early sign of CCCA

Central Centrifugal Cicatricial Alopecia



- Symptoms in 70% of subjects (n=100) ranging from itching (90%), pain/tenderness (84%), burning (24%), and/or soreness when present
- Characterization of severity of symptoms may serve as a marker of active disease (scale 0/10 - 10/10)
- Additional findings may include scaling (37%), erythema (16%), dyspigmentation (13%), pustules (6%)

Central Centrifugal Cicatricial Alopecia



- Likely responsible for more cases of scarring alopecia than all other form in Blacks with prevalence 2.7% to 5.7%
- Mean age 36 years in women with earliest report at age 14
- Infrequently reported in men

Central Scalp Photography Scale (Olsen Scale)



0



1A



1B



2A



2B



3A



3B



4A



4B



5A



5B

Nomenclature

What happens when CCCA does not have a typical presentation?



Misdiagnosis

Misdiagnosed as
Androgenetic Alopecia
Alopecia Areata
Other Scarring Alopecia



Delay in Diagnosis

Early CCCA treatment
may prevent permanent
hair loss and promote
hair regrowth



Inadequate Treatment

Misdiagnosis may lead to
inadequate treatment, as
scarring and non-scarring
alopecia require different
therapeutic regimens



Psychosocial Burden

Misdiagnosis and
inadequate treatment
can worsen the
psychosocial burden
and poor quality of life
outcomes in CCCA

Central Centrifugal Cicatricial Alopecia - Subtypes



Journal of the American Academy of
Dermatology

Available online 21 March 2024

[In Press, Journal Pre-proof](#) [?](#) [What's this?](#)



Lessons from a Scoping Review: Clinical Presentations of CCCA

[Yacine N. Sow BA](#)¹, [Tiaranesha K. Jackson MPH](#)², [Susan C. Taylor MD](#)³,
[Temitayo A. Ogunleye MD](#)³  

- CCCA nomenclature may drive clinical diagnosis
- However, atypical presentations have been noted clinically by the authors and reported in the literature
- This scoping review sought to characterize the distribution of hair loss in published cases of adult patients with CCCA

Central Centrifugal Cicatricial Alopecia - Subtypes

Methods

Textbooks

Case Reports

Case Series

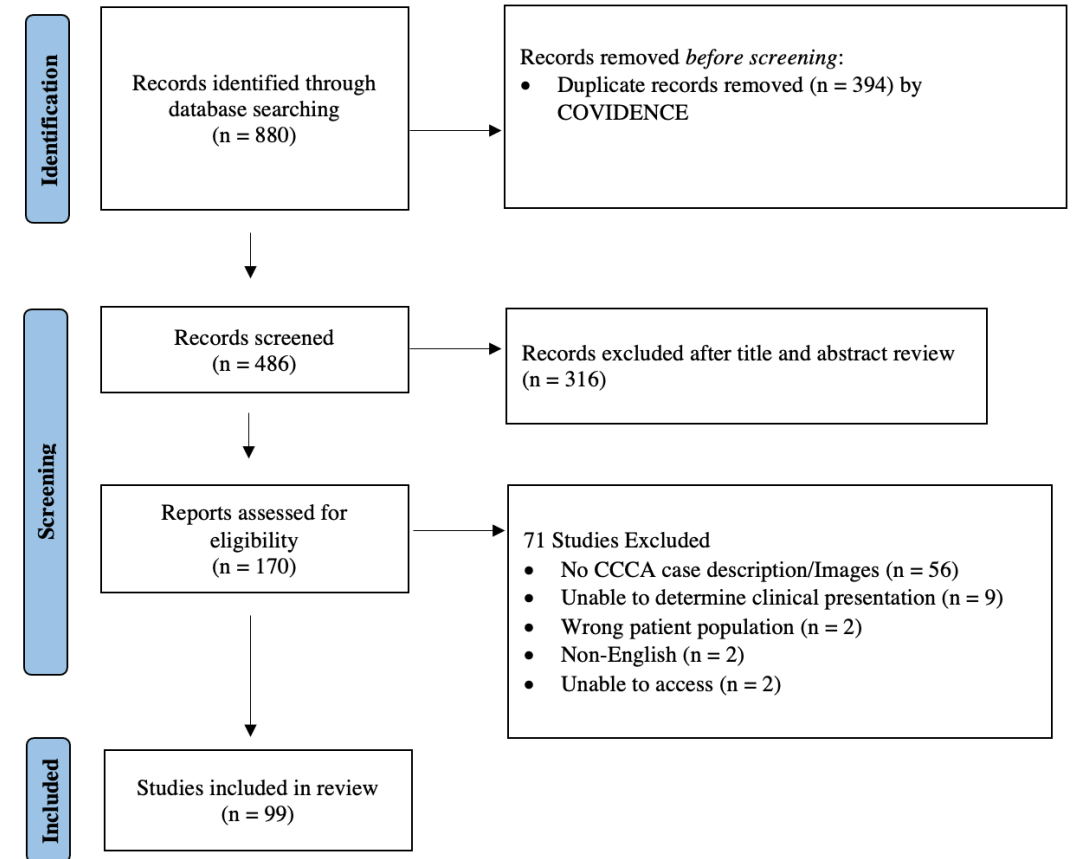
Clinical Research Studies

Eligible Studies

1. Described the alopecia pattern or had scalp photographs
2. Adults (>18 years)
3. Clinical diagnosis with or without histopathological evidence

Figure 2) Preferred reporting for systematic reviews and meta-analyses (PRISMA)

flowchart of study selection



Central Centrifugal Cicatricial Alopecia Subtypes



Atypical

Hair loss distribution other than only symmetric, vertex involvement

Publications: 99

CCCA Cases: 281

Classic: 203 (72%)

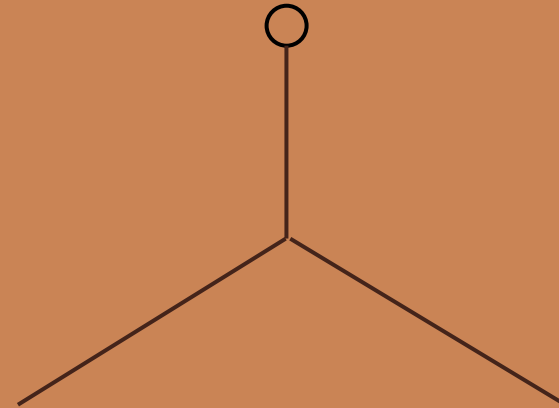
Atypical: 78 (28%)

Classic Variation

Symmetric, vertex involvement with frontal, temporal, parietal, and/or occipital involvement

Distinct Subtype

Patchy, occipital, parietal, frontal, temporal, and/or trichorrhhexis without symmetric, vertex involvement

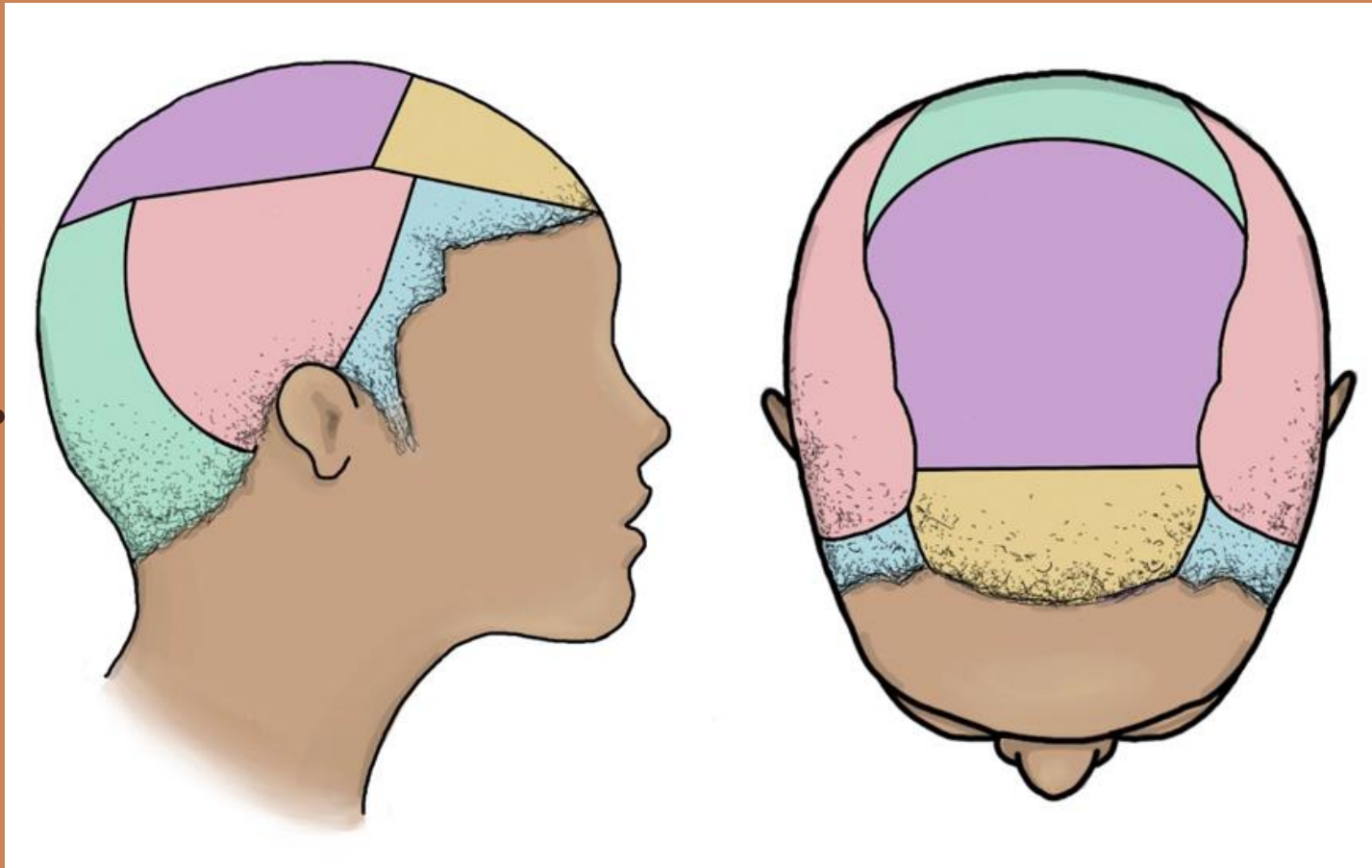


Central Centrifugal Cicatricial Alopecia Distinct Subtypes

Patchy
(8%)

Occipital
(0.4%)

Parietal (3%)



Frontal
(0.7%)

Temporal
(0.7%)

Trichorrhhexis (6%)

Central Centrifugal Cicatricial Alopecia - Subtypes



Classic



Occipital / Posterior Vertex



Frontal - Parietal



Patchy



Temporal



Decreased Hair Density

All Photographs are Biopsy-Confirmed CCCA Patients

Central Centrifugal Cicatricial Alopecia Frontal, Parietal, Temporal Subtypes



53 yr old AA F
Biopsy Proven



79 yr old AA F
Biopsy Proven

Central Centrifugal Cicatricial Alopecia Patchy Subtype



48 yr old AA F
Clinical Diagnosis



43 yr old AA M
Biopsy Proven

Central Centrifugal Cicatricial Alopecia Frontal and Bitemporal Subtypes



75 yr old AA F
Biopsy Proven

Central Centrifugal Cicatricial Alopecia Classic with Occipital and Occipital Subtypes



49 yr old AA F
Biopsy Proven



35 yr old AA M
Clinical Diagnosis

Central Centrifugal Cicatricial Alopecia Trichorrhhexis Subtype



31 yr old AA F
Clinical Diagnosis



43 yr old AA F
Clinical Diagnosis

Central Centrifugal Cicatricial Alopecia Classic with Temporal accentuation and Trichorrhhexis



58 yr old AA F
Clinical Diagnosis

Central Centrifugal Cicatricial Alopecia - Subtypes

Nonclassical clinical subtypes of CCCA may present similarly to other types of alopecia creating a diagnostic challenge

Subtype	Differential	Differential	Differential
Patchy	Alopecia Areata	Tinea Capitis	Syphilitic Alopecia
Temporal	Traction Alopecia	Female Pattern Hair Loss	Discoid Lupus Erythematosus
Frontal/ Parietal	Frontal Fibrosing Alopecia	Lichen Planopilaris	Traction Alopecia

Central Centrifugal Cicatricial Alopecia - Subtypes



Nearly one third

CCCA typically presents classically but nearly one third of published CCCA cases had distinct distributions



Nomenclature is limited

CCCA nomenclature does not always reflect clinical presentation and there may be a gap in reporting atypical alopecic distributions



Diagnostic challenge

CCCA may present similarly to other types of alopecia. Trichoscopy and histopathology are encouraged for accurate diagnosis



Future research

Validated severity scales inclusive to all clinical presentations of CCCA should be developed

Central Centrifugal Cicatricial Alopecia - Subtypes

Study Limitations

- Unable to access all potentially eligible sources and data
- Some studies did not have corresponding scalp photography, making it challenging to clarify vague data
- Photos limited by quality, dimensions, and inclusion of scalp quadrants to determine their assessment
- Unknown if patients had concurrent types of alopecia or trichoscopy findings that may have aided in diagnostic accuracy

Central Centrifugal Cicatricial Alopecia In Male Patients



Journal of the American Academy of
Dermatology

Volume 89, Issue 6, December 2023, Pages 1136-1140



Original article

Central centrifugal cicatricial alopecia in males

Tiaranesha K. Jackson MPH^a, Yacine Sow BA^b,

Katherine Omuete Ayoadé MD, PhD^c, John T. Seykora MD, PhD^{c d},

Susan C. Taylor MD^c, Temitayo Ogunleye MD^c  

CCCA is rarely reported in **males** and investigated demographics, medical histories, and clinical findings in men



Chart review of males at Penn Dermatology outpatient clinics (2012-2022)
Biopsy-confirmed CCCA or Cicatricial Alopecia - Unspecified” as identified by ICD-9 and 10 codes



Demographics

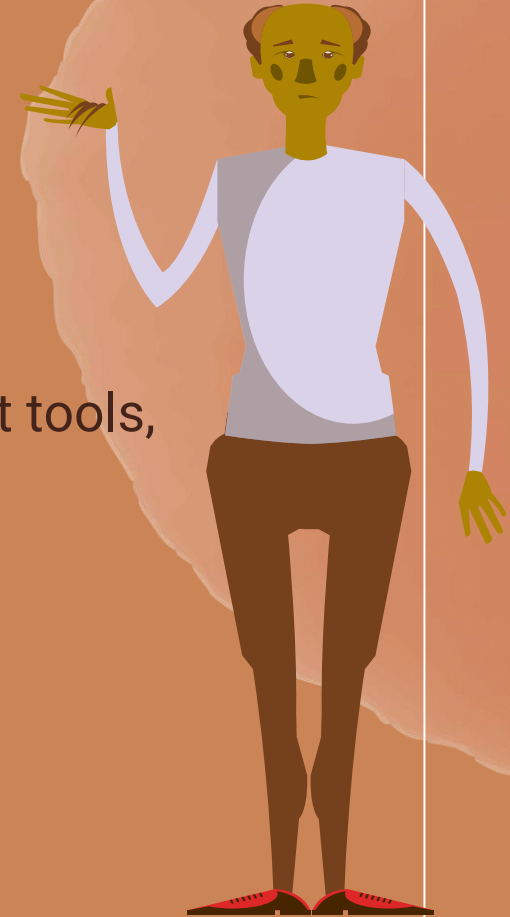
- Patients primarily Black or African American (n=15/17)
- Mean age 43 years (age 30 – 72 years)

Medical History

- 76.5% symptomatic (most commonly pruritus)
- 82.4% did not report hair care practices such as use of hot tools, chemical processing, tight braids, or locs
- 47.1% with FH of alopecia
- None had diagnosis of T2DM
- 3 cases had history of latent TB

Clinical Findings

- 8 cases with distinct distribution of scalp alopecia
- 29.4% had an overlapping diagnosis on scalp biopsy: 2 androgenetic alopecia, 2 lichen planopilaris, 1 lichen simplex chronicus



Central Centrifugal Cicatricial Alopecia in Males

Subtypes



8 Classic



3 Occipital



2 Patchy



2 Posterior Vertex



1 Diffuse



1 Undetermined

Only 8/17 cases presented with the classical subtype



Central Centrifugal Cicatricial Alopecia in Males

- CCCA may be unrecognized and underdiagnosed in males due to **atypical presentations**
- Variations in presentation can be clinically misdiagnosed (e.g. AGA)
- Scalp biopsy may be warranted even when diagnosis is thought to be clinically apparent
- Some similarities between males and females, but risk factors may be distinct (e.g. investigate TB infections in males with CCCA)



Original article

Central centrifugal cicatricial alopecia in males severity and time to diagnosis

Tiaranisha K. Jackson MPH^a, Yacine Sow BA^b,
Katherine Omuetti Ayoade MD, PhD^c, John T. Seykora MD, PhD^{c,d},
Susan C. Taylor MD^c, Temitayo Ogunleye MD^c  

Accepted for publication





Grade 2



Grade 3



Grade 4



Grade 5

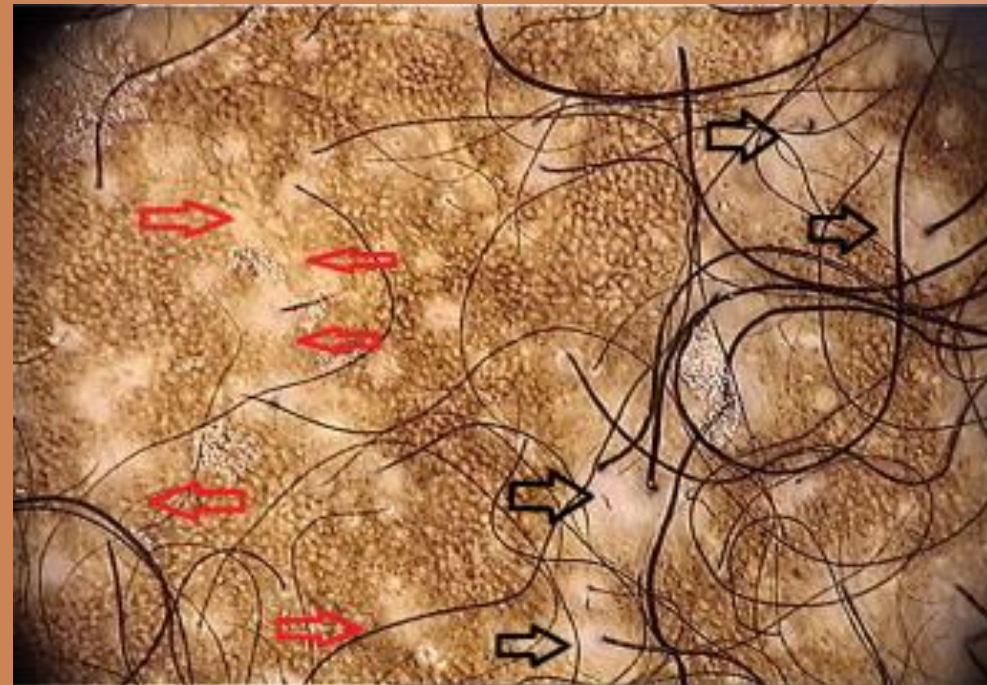
- Early diagnosis and treatment slow or halt disease progression and prevent permanent damage to hair follicles
- This study investigated alopecia severity and the time to biopsy-confirmed diagnosis among males with CCCA

CCCA in Males – Severity and Time to Diagnosis

Patient N = 12	Time Between CCCA Onset and Diagnosis	CCCA Severity Score (reviewer 1)	CCCA Severity Score (reviewer 2)
1	1 year, 10 months	4B	4B
2	5 years	2A	2A
3	9 months	3A	3A
4	unknown	4B	4B
5	3 years	4B	4A
6	9 years	3A	3B
7	12 years	5B	5B
8	6 years	3B	3B
9	8 months	3B	3B
10	1 year	4B	4A
11	15 years, 2 months	5A/B	5A/B
12	16 years, 6 months	4B	3B

- 91.7% had a **severity grade of 3 or greater** (severity was independently assessed by 2 dermatologists using the “Central Scalp Alopecia Photographic Scale”)
- On average, it took **6.4 years** for patients to receive a diagnosis of CCCA after the onset of scalp symptoms and/or hair loss (CCCA onset was defined as the patient reported start time of hair loss and/or scalp symptoms using chart review)
- 72.7% were diagnosed >1 year after onset of CCCA
- 45.4% were diagnosed >5 years after onset
- For patients with alopecia areata: 72.4% of patients received their diagnosis within a year after onset of symptoms, and the mean time from onset of symptoms to diagnosis was 1 year
- Males with CCCA experience **significant diagnostic delay** and present to dermatology with late-stage alopecia
- Small sample size of 12

Central Centrifugal Cicatricial Alopecia - Diagnosis



- Reason for performing a scalp biopsy is to confirm the diagnosis and to identify multiple diagnoses
- Use a dermatoscope to select the site for biopsy which yields higher diagnostic results on pathology

- Peripilar gray/white halo that is a specific and sensitive dermatoscopic sign for CCCA
- White patches represent follicular dropout and follicular scarring
- Hair shaft variability with diminished terminal-to-vellus ratio
- Pinpoint white dots

Central Centrifugal Cicatricial Alopecia - Diagnosis

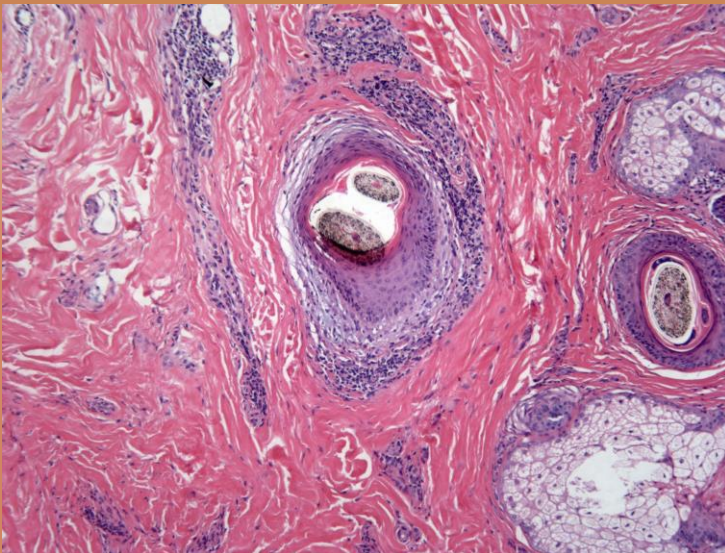


ORIGINAL ARTICLE

Characterization of the inflammatory features of central centrifugal cicatricial alopecia

Alexandra Flamm, Ata S. Moshiri, Fritzlaine Roche, Ginikanwa Onyekaba, Jennifer Nguyen, Alaina J. James, Susan Taylor, John T. Seykora ✉

First published: 18 February 2020 | <https://doi.org/10.1111/cup.13666>



- CCCA is associated with a CD4-predominant perifollicular lymphocytic inflammatory infiltrate in contrast to both LPP and FFA which are CD8-predominant lymphocytic infiltrates
- Premature desquamation of the inner root sheath
- Lamellar perifollicular fibrosis
- Eccentric thinning of ORS
- Reduced follicular density
- Polytrichia

Central Centrifugal Cicatricial Alopecia Quality of Life



Research letter |  Full Access

Quality of life in patients with central centrifugal cicatricial alopecia: a preliminary study

Abena Maranga, Fritzlaine C. Roche, Maryam Alausa, Tara McWilliams, David J. Margolis, Gabriella Fabbrocini, Carlo Natale Lauro, Rosanna Cataldo, Susan C. Taylor 

First published: 15 June 2022 | <https://doi.org/10.1111/bjd.21710>

A 22-item survey of dermatology patients with biopsy confirmed CCCA, the average CCCA-QLI score was 53.31.

- Subjective symptoms and objective signs indicated significantly impaired QoL
- The subjective concerns that brought the most distress to our population were:
- “I am sad about the appearance of my hair”
- “I tend to hide my scalp with hats or bandanas”
- “I cannot forget I have this hair problem”

Central Centrifugal Cicatricial Alopecia Quality of Life



JAPANESE
DERMATOLOGICAL
ASSOCIATION

THE JOURNAL OF
DERMATOLOGY

Letter To The Editor | [Full Access](#)

Comorbid anxiety and depression among black women with central centrifugal cicatricial alopecia: A retrospective study

Shanice A. McKenzie, Fritzlaine C. Roche, Ginikanwa Onyekaba, Devin M. Williams, Temitayo A. Ogunleye, Susan C. Taylor

The risk of psychiatric comorbidity for patients with CCCA was found to be similar to psoriasis and alopecia areata, which are diseases with known psychiatric comorbidities

- These findings suggest that CCCA patients may benefit from psychological screening and interventions
- Dermatologists caring for patients with CCCA should provide appropriate resources to better support patients with this diagnosis

Central Centrifugal Cicatricial Alopecia - Associations

AAD Journal of the
American Academy of Dermatology

RESEARCH LETTER | VOLUME 86, ISSUE 3, P661-662, MARCH 01, 2022

Association of type 2 diabetes with central centrifugal cicatricial alopecia: A follow-up study

Fritzlaine C. Roche, MS • Jasmine Harris, MS • Temitayo Ogunleye, MD • Susan C. Taylor, MD

- Women with CCCA had a 4-fold increased likelihood of **prediabetes or diabetes**, when compared to race-, and sex-matched controls
- Clinicians should caution women with diabetes that they may have an increased risk of CCCA and consider screening



Journal of the American Academy of
Dermatology

Available online 23 August 2022
In Press, Journal Pre-proof



Type 2 diabetes mellitus and central centrifugal cicatricial alopecia severity

Shaheir Ali BA ¹, Maya Collins BS ¹, Susan C. Taylor MD ³, Kristen Kelley BA ¹, Emma Stratton BSN ¹, Maryanne Senna MD ^{1, 2}

- Average CCCA severity grade in the T2DM or prediabetes group was 3.16 vs 2.57 in the control group (p = 0.043)

Central Centrifugal Cicatricial Alopecia - Associations

JAAD Journal of the
American Academy of Dermatology

RESEARCH LETTER | VOLUME 84, ISSUE 3, P859-860, MARCH 01, 2021

Association of breast and colorectal cancer in patients with central centrifugal cicatricial alopecia: A retrospective, cross-sectional pilot study

Jessica B. Brown-Korsah, BS • Fritzlaine C. Roche, MS • Susan C. Taylor, MD

- Women with CCCA had a nearly 3-fold increased likelihood of a history of **breast cancer**, when compared to race-, age-, and sex-matched controls
- The association may be due to several unknown genetic or environmental factors, but this association may also be due to a shared mutation in PADI3

Research Letter

FREE

February 2018

Association of Uterine Leiomyomas With Central Centrifugal Cicatricial Alopecia

Yemisi Dina, BS¹; Ginette A. Okoye, MD²; Crystal Aguh, MD²

[» Author Affiliations](#) | [Article Information](#)

JAMA Dermatol. 2018;154(2):213-214. doi:10.1001/jamadermatol.2017.5163

- Women with CCCA have nearly 5 times increased odds of having **uterine leiomyomas** compared with race-, age-, and sex-matched controls

CCCA- Associations

- Utilized the NIH “All of Us” research program database to investigate comorbidities
- n=201 CCCA cases
- n=201 age-, race-, ethnicity-, and gender-matched controls
- CCCA patients have **significantly increased risk of metabolic dysfunction**, atopic, autoimmune, metabolic, and psychiatric comorbidities

Risk Factor	Odds Ratio
Hyperlipidemia	↑ 5.20
Hypertension	↑ 8.62
Type 2 diabetes	↑ 5.66
Allergic rhinitis	↑ 6.03
Asthma	↑ 3.55
Atopic dermatitis	↑ 4.94
Autoimmune condition	↑ 4.92
Depression	↑ 3.23
Anxiety	↑ 5.37

Central Centrifugal Cicatricial Alopecia Treatment

- No published case-controlled studies
- No FDA approved treatment
- NAHRS (n=529) study NO association with
 - Relaxer, texturizer or hot comb use
 - Braids with extensions, weaves or tracts
 - History of seborrheic dermatitis
 - Reaction to a hair care product
 - Bacterial infection
- **Hair care practices are not causative** and treatment recommendations based solely on hair style modification are insufficient
- PADI-3 gene mutation in 25% in a study population

Central Centrifugal Cicatricial Alopecia

Treatment

- Patients with a history of thyroid disease and those using metformin for DM had higher odds of improvement after treatment
- Patients using hooded dryers and those wearing natural hairstyles had higher odds of improvement after treatment
- Patients with scaling or pustules had higher odds of worsening
- Age and stage at presentation was not found to have any significant effect on the odds of improving, remaining stable, or worsening
- Some patients may benefit from treatment independent of the years of stage of the disease

Central Centrifugal Cicatricial Alopecia Treatment

Dermatologists must avoid a "nothing can be done mentality"



05/05/2016



05/19/2022

- Review study of 71 cases of hair regrowth
- Among scarring alopecias, FFA had the most published cases of regrowth
- Treatments varied widely between and within each subtype
- Most commonly reported treatments were topical metformin for CCCA, light therapy for LPP, 5aRI for scalp FFA, intralesional triamcinolone for eyebrow FFA

Central Centrifugal Cicatricial Alopecia Treatment

> [J Am Acad Dermatol](#). 2024 Feb 9:S0190-9622(24)00308-6. doi: 10.1016/j.jaad.2023.12.073.
Online ahead of print.

Treatment for central centrifugal cicatricial alopecia- Delphi consensus recommendations

Tiaranisha Jackson ¹, Yacine Sow ², Jewell Dinkins ³, Crystal Aguh ⁴,
Katherine Omueti Ayoade ⁵, Victoria Barbosa ⁶, Cheryl Burgess ⁷, Valerie Callender ⁸,
George Cotsarelis ⁵, Pearl Grimes ⁹, Valerie Harvey ¹⁰, Chesahna Kindred ¹¹, Jenna Lester ¹²,
Kristen Lo Sicco ¹³, Tiffany Mayo ¹⁴, Amy McMichael ¹⁵, Michelle Oboite ¹⁶,
Temitayo Ogunleye ⁵, Elise Olsen ¹⁷, Achiamah Osei-Tutu ¹⁸, Melissa Piliang ¹⁹,
Maryanne Senna ²⁰, Jerry Shapiro ¹³, Antonella Tosti ²¹, Cheri Frey ²², Prince Adotama ¹³,
Susan C Taylor ²³

Affiliations + expand

PMID: 38341148 DOI: [10.1016/j.jaad.2023.12.073](#)

Gap

No established
guidelines exist for
the treatment of CCCA

Objective

To develop consensus
statements for appropriate
therapies in adults with
CCCA and establish a
framework to guide clinical
practice

Methods

3 round modified-Delphi
of 21 US board-certified
dermatologists with hair
and scalp expertise
January – March 2023

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations



**20 total statements met strong
consensus ($\geq 75\%$)**

**2 statements met moderate
consensus ($\geq 55\%$ but $< 75\%$)**

**70 statements did not meet
consensus ($< 55\%$)**

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations

Table I. Delphi consensus recommendations

Statements meeting strong consensus

High-potency topical corticosteroid treatment (alone or in combination)

A high-potency topical corticosteroid on the scalp (alone or in combination) as a maintenance dose.

A high-potency topical corticosteroid (alone or in combination) as a maintenance dose

Topical minoxidil 5% or greater as adjunct treatment in adults with CCCA

CCCA, Central centrifugal cicatricial alopecia

*Statement combines 2 therapeutic options

- High potency topical corticosteroids (alone or in combination) for at least 4 weeks then tapered to maintenance dose of 2-5x weekly
- Topical minoxidil 5% or greater or oral minoxidil as adjunct therapy (oral dose unspecified)

Statement	Delphi round for consensus
High-potency topical corticosteroid treatment (alone or in combination)	1
A high-potency topical corticosteroid on the scalp (alone or in combination) as a maintenance dose.	2
A high-potency topical corticosteroid (alone or in combination) as a maintenance dose	1
Topical minoxidil 5% or greater as adjunct treatment in adults with CCCA	3

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations

Table II. Delphi consensus

Statements meeting strong consensus

Oral doxycycline (or other tetracycline or in combination) up to 3 months (CONSENSUS DISAGREEMENT)*,†

Oral doxycycline (or other tetracycline or in combination) up to 6 months (CONSENSUS DISAGREEMENT)*,†

Oral antibiotics are appropriate for treatment of CCCA.

Systemic corticosteroids are appropriate for treatment of CCCA (CONSENSUS DISAGREEMENT)†

CCCA, Central centrifugal cicatricial alopecia.

*Statement met strong consensus after clarification and group discussion in round 3.

†CONSENSUS DISAGREEMENT = statement did not meet strong consensus in any round.

- Oral doxycycline 200mg daily for up to 6 months in patients with active disease
- Systemic corticosteroids are NOT appropriate

Statements—systemic

	<i>n</i>	Delphi round for consensus
Oral doxycycline (or other tetracycline or in combination) up to 3 months	14/16	3
Oral doxycycline (or other tetracycline or in combination) up to 6 months	15/20	2
Oral antibiotics are appropriate for treatment of CCCA	16/20	2
Systemic corticosteroids are appropriate for treatment of CCCA	14/16	3

†Statement met strong consensus after clarification and group discussion in round 3.

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations

Table III. Delphi consensus

Statements meeting strong consensus

Intralesional triamcinolone acetate is prescribed (alone or in combination with other treatments) as maintenance therapy for active disease. It is appropriate to limit the maximum dose administered in 1 session to 20 mg. The maximum dose of intralesional triamcinolone acetate to an adult with CCCA is up to 20 mg. Hair transplantation should be avoided in the presence of active scalp inflammation. Hair transplantation may improve outcomes in the presence of active scalp inflammation for patients with CCCA. There is limited information to support the use of PRP or fibrin matrix as treatment for CCCA.[‡]

CCCA, Central centrifugal cicatricial alopecia.
*Statement met strong consensus at Delphi.
†New statement added and voted on at Delphi.
‡Experts voted to replace “inadequately supported” with “not enough evidence to recommend”.

- Intralesional steroids 5-10 mg/cc for active disease (q4-12 wks) or as maintenance therapy
- Max 20 mg of intralesional steroids in one session
- No evidence of active scalp disease for at least 1 yr before hair transplant
- Not enough evidence to recommend PRP or fibrin matrix

-procedural	
<i>n</i>	Delphi round for consensus
18/21	1
16/20	2
17/20	2
15/16	3
20/21	1
14/16	3
14/16	3

to 10 mg/cc.

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations

Supplements

Screen for vitamin D and iron/ferritin and correct deficits with oral supplements

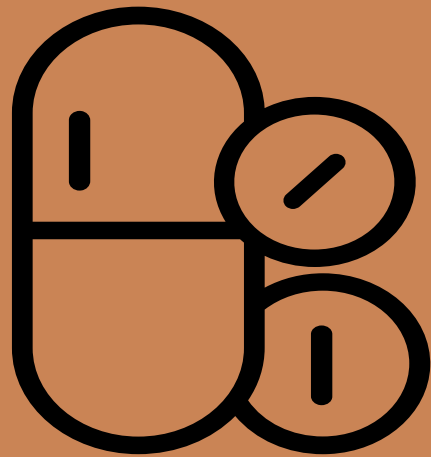
Behavioral

Recommend discontinuing or limiting traction inducing hairstyles
Assess how much a patient is bothered by their hair loss and refer for counseling or support groups if needed
Shampoo scalp at least once every 2 weeks

Did Not Reach Consensus

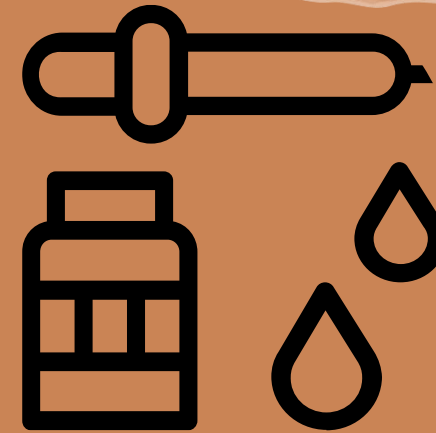
Recommendation for zinc and other antioxidant, anti-inflammatory, and anti-androgenic supplements
Screening for T2DM
Recommendation to limit thermal heat practices or permanent dye

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations Moderate Consensus



Systemic

Oral hydroxychloroquine is appropriate treatment (alone or in combination) for active CCCA in patients with inadequate response to other therapies.

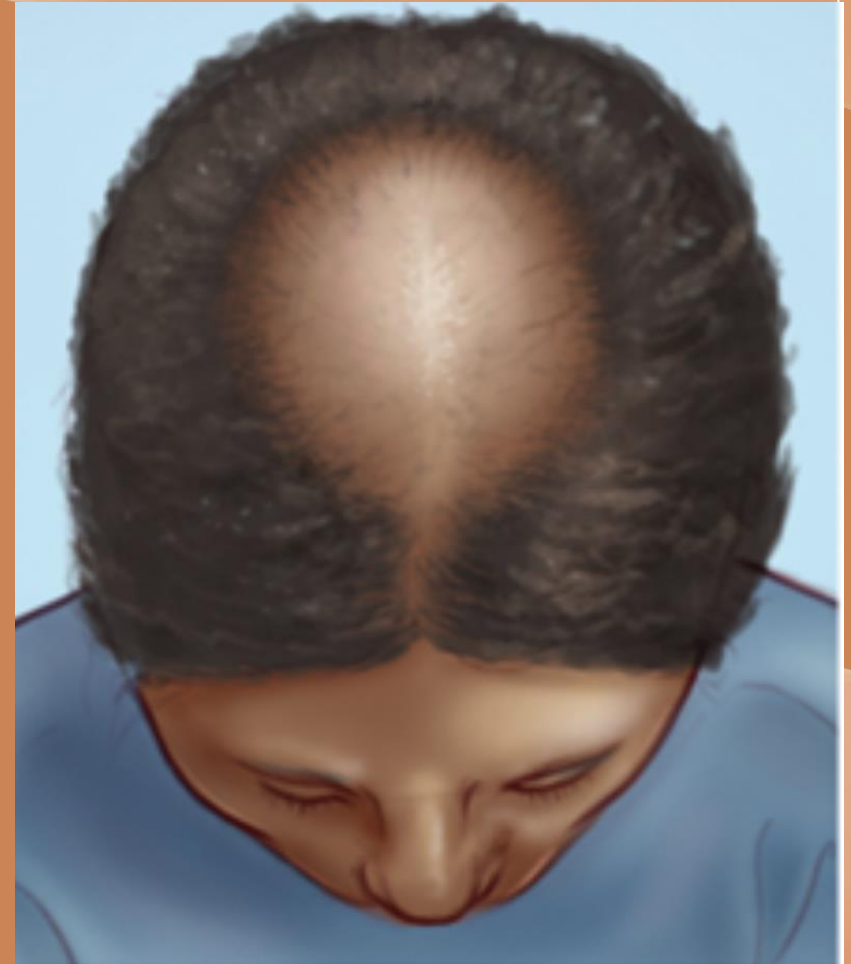


Behavioral

It is important to discuss discontinuing or limiting the use of chemical hair relaxers and straighteners in patients with CCCA.

Central Centrifugal Cicatricial Alopecia Treatment Delphi Consensus Recommendations CONCLUSION

- The framework for treatment recommendations was established using 5 categories
- Dermatologists formed 20 consensus statements for treating CCCA in adults
- Strongly recommended topical and intralesional corticosteroids, oral antibiotics, topical and/or low-dose oral minoxidil, and hair transplantation, while recommendation for oral hydroxychloroquine only reached moderate consensus agreement
- Lacked consensus for other therapies including topical calcineurin inhibitors or metformin and oral supplements



Central Centrifugal Cicatricial Alopecia Treatment

Oral doxycycline, IL triamcinolone, topical minoxidil



05/05/2016

Courtesy Susan Taylor, MD



05/19/2022

Central Centrifugal Cicatricial Alopecia Treatment

Intralesional triamcinolone and oral minoxidil



Courtesy Temitayo Ogunleye, MD

Central Centrifugal Cicatricial Alopecia Summary

Central Centrifugal Cicatricial Alopecia

- Update of Clinical Subtypes
- CCCA in Male Patients
- Comorbidities in Patients with CCCA
- Delphi Consensus Therapeutic Recommendations

Central Centrifugal Cicatricial Alopecia

Summary

- Dermatologists must consider CCCA in the differential diagnosis for adult Black males with alopecia
- More research is needed to explore advanced CCCA in males, factors limiting timely diagnosis, and the impact on quality of life
- Patients with CCCA may not only present with typical central hair loss with centrifugal evolution
- Patients with CCCA experience significant diagnostic delay and present to dermatologists with advanced scarring
- Awareness of comorbidities and impact on quality of life is needed
- Consensus was reached for several statements to help clinicians manage CCCA

References

1. Jackson TK, Sow Y, Ayoade KO, Seykora JT, Taylor SC, Ogunleye T. Central centrifugal cicatricial alopecia in males. *J Am Acad Dermatol*. 2023;89(6):1136-1140. doi:10.1016/j.jaad.2023.07.1011
2. Malki L, Sarig O, Romano MT, et al. Variant PADI3 in Central Centrifugal Cicatricial Alopecia. *N Engl J Med*. 2019;380(9):833-841. doi:10.1056/NEJMoa1816614
3. Olsen EA, Callender V, McMichael A, et al. Central hair loss in African American women: incidence and potential risk factors. *J Am Acad Dermatol*. 2011;64(2):245-252. doi:10.1016/j.jaad.2009.11.693
4. Andersen YMF, Nymand L, DeLozier AM, Burge R, Edson-Heredia E, Egeberg A. Patient characteristics and disease burden of alopecia areata in the Danish Skin Cohort. *BMJ Open*. 2022;12(2):e053137. doi:10.1136/bmjopen-2021-053137
5. Sow, Yacine (2024), "Supplementary materials of "Lessons from a Scoping Review: Clinical Presentations of CCCA"", Mendeley Data, V1, doi: 10.17632/6ppwxfvpr4.1
6. Sow Y, Jackson TK, Taylor SC, Ogunleye T. Lessons from a Scoping Review: Clinical Presentations of CCCA, *J Am Acad Dermatol*. 2024. doi.org/10.1016/j.jaad.2024.03.009
7. Jackson T, Sow Y, Dinkins J, et al. Treatment for central centrifugal cicatricial alopecia-Delphi consensus recommendations. *J Am Acad Dermatol*. Published online February 9, 2024. doi:10.1016/j.jaad.2023.12.073
8. Jackson, T. Supplementary Material to Treatment for Central Centrifugal Cicatricial Alopecia - Delphi Consensus Recommendations. Mendeley Data, V1. 2024. doi: 10.17632/4wph4b4bbw.1
9. Aguh C, McMichael A. Central Centrifugal Cicatricial Alopecia. *JAMA Dermatol*. 2020;156(9):1036. doi:10.1001/jamadermatol.2020.1859
10. Green M, Feschuk A, Valdebran M. Risk factors and comorbidities associated with central centrifugal cicatricial alopecia. *Int J Womens Dermatol*. 2023;9(3):e108. Published 2023 Sep 21. doi:10.1097/JW9.000000000000108
11. Joshi TP, Duruewuru A, Garcia D, Mireles N, Truong P, Cockerell CJ. Comorbidities in patients with central centrifugal cicatricial alopecia: a case-control study. *Int J Dermatol*. 2024;63(2):e37-e39. doi:10.1111/ijd.16932
12. Leung B, Lindley L, Reisch J, Glass DA 2nd, Ayoade K. Comorbidities in patients with central centrifugal cicatricial alopecia: A retrospective chart review of 53 patients. *J Am Acad Dermatol*. 2023;88(2):461-463. doi:10.1016/j.jaad.2022.06.013

THANK YOU
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