Diagnosis of non-scarring hair loss by trichoscopy

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

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S063 Diagnosis of non-scarring hair loss by trichoscopy

DISCLOSURES

Taylor&Francis: Royalties
Trichoscopyonline: Royalties
Fotofinder :Consultant
Androgenetic alopecia

Always evaluate and compare androgen dependent and non androgen dependent scalp
Androgenetic alopecia

Part the hair and evaluate/take pictures from vertex, mid and frontal scalp at 20X and 40-50X. Images from frontal scalp 2-3 cm from hairline.
Androgenetic alopecia

Diagnostic features

Hair diameter diversity

More than 6 thin short regrowing hair frontal scalp
Androgenetic alopecia

Hair diameter diversity

More than 20% variability in the hair shaft diameter

Dermoscopic sign of miniaturization
Androgenetic alopecia

Hair diameter variability

> 20% variability is characteristic of androgenetic alopecia

Androgenetic alopecia

Hair diameter diversity

Easier to assess variability at high magnification.
Androgenetic alopecia

Hair diameter diversity

If you use a normal dermatoscope just take a picture with your phone through the dermatoscope!

And then enlarge the image in the screen
Androgenetic alopecia

Hair diameter diversity

Use the picture showing variability to explain the disease to the patient
Androgenetic alopecia

More than 6 thin short vellus hair in the frontal scalp

Described in women but seen also in men

Can also be evaluated as percentage:
more than 10%

Androgenetic alopecia
In patients of African descent

Variability more difficult to assess

Look for short thin hairs in the frontal scalp
Androgenetic alopecia

Other features

- Peripilar sign
- Yellow dots
- Empty follicles
- Circle hairs
- Single hair bearing follicles
- Honeycomb pattern
- Hair dyes/Camouflage
Androgenetic alopecia

Other features

Peripilar sign

Brown depressed halo at the follicular ostium around the emergent hair shaft
Androgenetic alopecia

Peripilar sign

Early androgenetic alopecia

Inflammation around the upper follicle

Androgenetic alopecia

Yellow dots

Follicular ostia
filled with keratin
and sebum

Might contain a
very
miniaturized hair
Androgenetic alopecia

Yellow dots

Advanced androgenetic alopecia

Androgenetic alopecia

Short regrowing hairs

Thin (<0.03mm)

Miniaturized hair
Androgenetic alopecia

Circle hairs

Miniaturized hairs

A few circle hair are a common feature
Androgenetic alopecia

Single hair bearing follicles

Number of single bearing follicles increase with AGA severity
Androgenetic alopecia

Honeycomb pattern

Homogenous brown mosaic encircling hypopigmented areas

Sign of sun exposure
Androgenetic alopecia

Hair dyes

Often penetrate and stain the follicular ostia

The dye was not properly washed
Androgenetic alopecia

Camouflage products

Camouflage fibers and dye
Androgenetic alopecia

Associated diseases

Seborrheic dermatitis

Scalp psoriasis
Androgenetic alopecia

Seborrheic dermatitis

Yellow scales

Arborizing red lines
Androgenetic alopecia

Seborrheic dermatitis

Yellow scales

Arborizing red lines
Androgenetic alopecia

Seborrheic dermatitis

Arborizing red lines
Androgenetic alopecia

Scalp psoriasis

Red dots (10-20X)

Twisted capillary loops (>40X)
Androgenetic alopecia

Role of dermoscopy in the follow up

Great improvement after treatment with topical Minoxidil
Take home message

Dermoscopy very useful to

Diagnose early AGA

Differentiate AGA from other diffuse or circumscribed alopecias

Explain disease to the patient

Detect associated diseases or situations that can accelerate disease progression

Follow up patients during therapy
Telogen effluvium

You can not distinguish acute TE from chronic TE by dermoscopy
Acute telogen effluvium

Often triggers, unmask or aggravates AGA

Dermoscopy is very important to distinguish simple TE from TE associated with AGA as these patients require a treatment!
Telogen effluvium

Diagnostic features

Absence of variability

Short regrowing hair of normal thickness
Telogen effluvium

Diagnostic features

Absence of variability

All shafts have same thickness
Telogen effluvium

Short regrowing hair of normal thickness

More numerous in acute TE

Use the image to show to the patient that the hair is regrowing
Take home message

Dermoscopy very useful to

Distinguish simple TE from TE associated to AGA

Distinguish TE from other causes of acute shedding (mainly alopecia areata)

Show patient that the hair is growing back
Alopecia Areata

Dermoscopy useful for

Diagnosis of atypical cases

Assess disease activity and short term prognosis

Follow up during treatment
Alopecia Areata

Diagnostic features

Exclamation mark hairs

Yellow dots

Black dots

Circle hairs
Alopecia Areata

Diagnostic features

Exclamation mark hairs

Broken hairs with a thick pigmented tip
Alopecia Areata

Diagnostic features

Yellow dots

Correspond to infundibula filled with sebum and keratin.
Alopecia Areata

Diagnostic features

Yellow dots

Show the image to the patient to explain that the hair follicles are still there!
Alopecia Areata

Diagnostic features

Black scalp shows white dots instead of yellow dots
Alopecia Areata

Diagnostic features

Black dots

Shafts that had fractured before scalp emergency.
Alopecia Areata

Diagnostic features

Circle hairs

Numerous circle hairs are diagnostic for alopecia areata
Alopecia Areata

Other features

Broken hairs
Short regrowing hairs
Pseudo-monilethrix
Coudability
Flame hairs
Alopecia Areata

Other features

Broken hairs

Seen in other conditions, particularly trichotillomania
Alopecia Areata

Dermoscopy useful for

Diagnosis of atypical cases

Small patches

Diffuse alopecia areata

Alopecia areata incognita
Alopecia Areata

Dermoscopy useful to

Assess disease activity and short term prognosis

Examine the borders of the patches

Examine apparently normal scalp
Alopecia Areata

Dermoscopy useful to

Assess disease activity and short term prognosis

Scalp surrounding the patch shows exclamation mark hairs

Disease is active and the patches will enlarge
Alopecia Areata

Dermoscopy useful to

Assess disease activity
and short term prognosis

Apparently normal scalp
shows broken hairs,
coudability,
pseudo-monilethrix

Active disease, patient will
develop new patches
Alopecia Areata

Dermoscopy useful for

Follow up during treatment

Short regrowing hairs

No signs of active disease
Alopecia Areata

Dermoscopy useful for

Follow up during treatment

Detecting hair regrow
Take home message

Dermoscopy very useful to

Establish diagnosis in atypical cases, particularly diffuse alopecia areata

Establish short term prognosis

Detect early regrowth during treatment
Thank you!

Learning from the experts!

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