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FIBROSING ALOPECIA IN A PATTERN DISTRIBUTION (FAPD)

What is fibrosing alopecia in a pattern distribution?

- This is a type of scarring hair loss condition.
- It is considered a subtype of lichen planopilaris
- The term fibrosing alopecia in a pattern distribution (FAPD) was first introduced by Zinkernagel and Trüeb in 2000. The authors of this 2000 study described 19 patients who presented with hair loss showing features of both androgenetic alopecia and lichen planopilaris. However, the well-defined scarred areas that are typically seen in classic LPP were not present.
- Patients with FAPD first appear to have androgenetic alopecia with redness that is often mistaken for seborrheic dermatitis. Of course seborrheic dermatitis may also be present given that it is a common condition. However, a closer look shows that there is perifollicular erythema and sometimes also perifollicular scale. The key in FAPD is that this inflammation is predominantly targeting the miniaturizing hairs.

Who gets fibrosing alopecia in a pattern distribution?

- Women are more likely affected than men
- Patients with FAPD have special type of androgenetic alopecia associated with a scarring alopecia

What are the symptoms of fibrosing alopecia in a pattern distribution?

- Patients with fibrosing alopecia in a pattern distribution may have itching and pain on the scalp – generally in the central scalp.
- They may also have burning, pain and tenderness in the scalp.
- Some patients note that the scalp is tender when the hairs are moved.
- There may be redness in the scalp and some scale.
- However, it is important to keep in mind that not all patients with FAPD have symptoms. In fact, only 37 % of patients with FAPD in the Zinkernagel and Trüeb study had symptoms of itching or pain.

How does the doctor arrive at the diagnosis of fibrosing alopecia in a pattern distribution?

- Several features lead to this diagnosis, including areas of scarring hair loss, some redness and scale around the hair follicles. The key point on examination is the redness around the hairs.
- Trichoscopy is very helpful technique to arrive closer to the diagnosis. All patients with FAPD showed perifollicular erythema on trichoscopy and 79 % of patients showed loss of the follicular openings. 58 % showed perifollicular scaling in the area of hair loss.
- Biopsy too is very important. The findings on the biopsy showing inflammation, loss of the fat glands and scarring around the hair follicles. Biopsies show similar features to lichen planopilaris with the exception that the immune system appears to be targeting the miniaturizing hairs and vellus hairs to a greater extent than terminal hairs. Of 14 patients in the Zinkernagel and Trueb study that underwent biopsy, 100% had a perifollicular lymphocytic infiltrate, 93 % had 57 % had perifollicular fibrosis, 57 % had follicular interface dermatitis, 29 % showed keratinocyte necrosis and 71 % showed hair follicle miniaturization.

How is fibrosing alopecia in a pattern distribution treated?

- The goal of treatment is to stop the disease. Some patients also get an improvement.
- Treatment with hormone blockers like spironolactone or finasteride (or certain oral contraceptives in women may be used)
- Use of topical medicines you apply yourself at home may also be advised (Clobetasol lotion or foam or Clobex shampoo)
- In most cases, minoxidil will also be recommended
- Sometimes, hair transplantation can be performed if the disease become quiet – but only when it is quiet.

How long will I be on these treatments?

- Your disease will be carefully monitored. If the disease does not appear to be spreading, the doses of some medications (like the cortisones) will be reduced and possibly stopped. Antiandrogens may be needed long term.
- Antiandrogens not only address the androgenetic hair loss but have been found to reduce inflammation in some patients with FAPD.
- However, if there is any evidence the disease is increasing, increased doses or even new medications may be prescribed.

Comparison of Androgenetic Alopecia, Lichen Planopilaris , FAPD and Cicatricial Pattern Hair Loss

	AGA	LPP	FAPD	CPHL
Type of Hair Loss	Non-Scarring	Scarring	Scarring	Scarring
Clinical Features	M>F Males: usually starts temples and/or crown Females: Usually mid scalp or vertex, with minor temple changes	F>M Many presentations but often with involvement of the mid scalp; AGA may be present	F>M Looks identical to AGA except there is redness	F over 40; Typical FPHL with patches of “focal atrichia”
Trichoscopy Features	Miniaturization of follicle (variation in caliber)	Perifollicular erythema, perifollicular scale, loss of ostia Miniaturization may be seen if patient also has AGA Scalp erythema	Miniaturization of follicles (variation in caliber) Perifollicular erythema in all; some with perifollicular scale, loss of ostia over time.	Miniaturization with no perifollicular erythema and no perifollicular scale.
Biopsy Features	Miniaturization of follicles Preservation of sebaceous glands	Lichenoid inflammation targeting the isthmus and infundibulum of follicles, including terminal follicles Loss sebaceous glands	Miniaturization of follicles with lichenoid inflammation targeting the isthmus and infundibulum of some miniaturized follicles. Loss sebaceous glands	Inflammation around the isthmus; perifollicular fibrosis No interface changes in the follicular epithelium Loss sebaceous glands

Comparison of Androgenetic Alopecia with Lichen Planopilaris and Fibrosing Alopecia in Pattern Distribution

More likely LPP +AGA	More Likely FAPD
Perifollicular scale and perifollicular erythema seen in the occipital and parietal scalp in addition to mid-scalp	Perifollicular scale and perifollicular erythema seen in the mid scalp and crown only; back and sides are normal
Asymmetrical involvement (left side of scalp does not look like right side of scalp)	Symmetrical involvement (left side of scalp looks like right side of scalp)
Clear areas of scarred hair loss seen even in early stages	Clear areas of scarred hair loss not seen in early stages
A range of terminal, miniaturized and vellus hairs can be seen in various areas	Hair caliber is often surprisingly homogenous in many areas with less variation in caliber of fibers than expected.
Biopsy shows lichenoid change affecting all hairs including terminal and miniaturized	Biopsy shows lichenoid change affecting predominantly miniaturized hairs