RESEARCH LETTER

Prevalence of frontal fibrosing alopecia among Brazilian dermatologists: A cross-sectional survey

To the Editor: Frontal fibrosing alopecia is a scarring alopecia that primarily affects the frontotemporal hairline in postmenopausal women. Its etiology is unknown but environmental factors are believed to play an important role, and the use of leave-on facial cosmetics has been associated with the disease in different countries.[1-3]

Since its description in 1994, its prevalence has increased worldwide in the past 15 years and it currently represents the most common form of cicatricial alopecia in referral hair clinics in several countries.[4] Although most authors agree the disease has an increasing prevalence, there are no available data on the actual frequency of the disease in different parts of the world.

To investigate frontal fibrosing alopecia prevalence, a questionnaire study was performed with Brazilian dermatologists. The study was approved by the institutional review board and an online questionnaire was presented to dermatologists attending dermatologic meetings from January until July 2018. Diagnosis of frontal fibrosing alopecia and suspected risk factors were investigated, as well as relevant demographic data. Diagnosis of frontal fibrosing alopecia was considered whenever subjects presented with a typical clinical presentation (scarring regression of the anterior portion of the hairline, bilateral eyebrow loss, or both) irrespective of histopathologic confirmation.

A total of 492 colleagues (466 women) agreed to participate. Mean age of participants was 38.5 ± 9.4 years and 87.8% of women were premenopausal. Use of facial leave-on products was frequent among this cohort, with 94.3% using them at least twice a week. The diagnosis of frontal fibrosing alopecia was noted by 24 dermatologists (4.9%), all women. Affected participants were older (48.6 ± 9.1 vs 38.0 ± 9.1 years; $P < .001$) and were more frequently postmenopausal (45.8% vs 10.4%; $P < .001$). Frontal fibrosing alopecia–affected dermatologists presented with a higher prevalence of autoimmune disease (odds ratio 3.75; 95% confidence interval 1.54-9.18; $P = .006$), allergy to cosmetic products (odds ratio 2.90; 95% confidence interval 1.07-7.87; $P = .05$), and previous episodes of facial skin irritation caused by moisturizers (odds ratio 4.74; 95% confidence interval 1.64-13.71; $P = .008$) on univariate analyses (Table I). These associations, with the exception of allergy history, remained significant on multivariate analyses.

Scarring alopecia was considered rare until recently. Compared with alopecia areata, which has a lifetime risk of 2.1%,[5] a frontal fibrosing alopecia prevalence of 4.9% seems to fit the impression of experts that such cases have outnumbered the frequency of noncicatricial alopecia in hair disease clinics.[4]

Study design characteristics might have influenced our results. First, our sample represents 5.2% of Brazilian dermatologists and selection bias might have increased the prevalence of the disease because affected subjects are more prone to volunteer. Second, recall bias may also have overestimated findings in the affected participants. Third, lack of clinical or histologic confirmation of frontal fibrosing alopecia diagnosis is an important limitation, but the inclusion of dermatologists makes the information provided somewhat more reliable. On the other hand, the young age group included might have underestimated frontal fibrosing alopecia prevalence because the disease is more frequently observed in postmenopausal women. Also, Brazilian dermatologists are a very specific subgroup in terms of sex, age, ethnicity, health-seeking behavior, and usage of skin-related products, so our results may not be extrapolatable to the Brazilian general population or to dermatologists outside Brazil.

In conclusion, prevalence of frontal fibrosing alopecia in Brazilian dermatologists is high, considering this is a form of scarring alopecia. We believe dermatologists are an excellent population to be investigated in light of their frequent use of leave-on cosmetics and data reliability. More studies need to be conducted to confirm our findings in this specific population and, if possible, the general population.

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Table I. Frequencies of findings in the group of 492 Brazilian dermatologists and comparison of findings between a group of 24 dermatologists with frontal fibrosing alopecia and 468 with non–frontal fibrosing alopecia

	Total (492 dermatologists) (%), n/N	FFA (24 dermatologists) (%), n/N	Non-FFA dermatologists (468 dermatologists) (%), n/N	*P* value	Odds ratio
Age, y	38.5 ± 9.4	48.6 ± 9.1	38.0 ± 9.1	<.001	
Women	466/492 (94.7)	24/24 (100.0)	442/468 (94.4)	.63	—
Premenopausal	409/466 (87.8)	13/24 (54.2)	396/442 (89.6)	<.001	0.14 (0.06-0.32)
Autoimmune disease	63/492 (12.8)	8/24 (33.3)	55/468 (11.8)	.006	3.75 (1.54-9.18)
Thyroiditis	41/63 (65.1)	6/8 (75.0)	35/55 (63.6)	.70	1.71 (0.32-9.31)
Lupus	3/63 (4.8)	0/8	3/55 (5.5)	>.99	—
Other autoimmune diseases	24/63 (38.1)	3/8 (37.5)	21/55 (38.2)	>.99	0.97 (0.21-4.49)
Allergy	228/492 (46.3)	17/24 (70.8)	211/468 (45.1)	.02	2.96 (1.20-7.27)
Food allergy	31/228 (13.6)	5/17 (29.4)	26/211 (12.3)	.06	2.96 (0.97-9.10)
Drug allergy	86/228 (37.7)	6/17 (35.3)	80/211 (37.9)	>.99	0.89 (0.32-2.51)
Metal allergy	79/228 (34.6)	7/17 (41.2)	72/211 (34.1)	.60	1.35 (0.49-3.70)
Cosmetic allergy	68/228 (29.8)	9/17 (52.9)	59/211 (28.0)	.05	2.90 (1.07-7.87)
Other allergies	75/228 (32.9)	6/17 (35.3)	69/211 (32.7)	.80	1.12 (0.40-3.16)
Patch tested	40/228 (17.5)	5/17 (29.4)	35/211 (16.6)	.19	2.10 (0.69-6.32)
Negative	6/40 (15.0)	0/5	6/35 (17.1)	>.99	—
Nickel	26/40 (65.0)	3/5 (60.0)	23/35 (65.7)	>.99	0.78 (0.11-5.34)
Fragrance	5/40 (12.5)	0/5	5/35 (14.3)	>.99	—
Other	16/40 (40.0)	2/5 (40.0)	14/35 (40.0)	>.99	1.00 (0.15-6.77)
Facial skin irritation	267/492 (54.3)	19/24 (79.2)	248/468 (53.0)	.01	3.37 (1.24-9.18)
By sunscreen	46/267 (17.2)	5/19 (26.3)	41/248 (16.5)	.34	1.80 (0.62-5.28)
By moisturizers	28/267 (10.5)	6/19 (31.6)	22/248 (8.9)	.008	4.74 (1.64-13.71)
By antiaging product	145/267 (54.3)	9/19 (47.4)	136/248 (54.8)	.64	0.74 (0.29-1.89)
By other products	119/267 (44.6)	12/19 (63.2)	107/248 (43.2)	.100	2.26 (0.86-5.93)
Scalp irritation	123/492 (25.0)	8/24 (33.3)	115/468 (24.6)	.34	1.53 (0.64-3.68)
By hair dye	39/123 (31.7)	1/8 (12.5)	38/115 (33.0)	.43	0.29 (0.03-2.44)
By hair straightening	52/123 (42.3)	1/8 (12.5)	51/115 (44.4)	.14	0.18 (0.02-1.50)
By shampoo	17/123 (13.8)	1/8 (12.5)	16/115 (13.9)	>.99	0.88 (0.10-7.67)
By conditioner	3/123 (2.4)	1/8 (12.5)	2/115 (1.7)	.18	8.07 (0.65-100.2)
By other products	32/123 (26.0)	5/8 (62.5)	27/115 (23.5)	.03	5.43 (1.22-24.2)
Frequency of facial leave-on now					
Daily	408/492 (82.9)	21/24 (87.5)	387/468 (82.7)	.78	1.47 (0.43-5.03)*
2-6 times/wk	56/492 (11.4)	1/24 (4.2)	55/468 (11.8)	.64	0.65 (0.14-2.90)†
Once a week	21/492 (4.3)	2/24 (8.3)	19/468 (4.1)		
Never	7/492 (1.4)	0/24	7/468 (1.5)		—
Frequency of facial leave-on before					
Daily	152/492 (30.9)	5/24 (20.8)	147/468 (31.4)	.37	0.57 (0.21-1.57)*
2-6 times/wk	112/492 (22.8)	4/24 (16.7)	108/468 (23.1)	.14	0.50 (0.22-1.17)†
Once a week	127/492 (25.8)	5/24 (20.8)	122/468 (26.1)		
Never	101/492 (20.5)	10/24 (41.7)	91/468 (19.4)		

FFA, Frontal fibrosing alopecia; —, odds ratio cannot be calculated when one of the groups had no events.
*Daily compared with others.
†Daily and 2 to 6 times a week compared with others. Statistical tests for comparison of proportions were Fisher's exact test. The odds ratio and 95% confidence interval were calculated from the frequencies in the 2-×-2 tables.

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