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Association between halo nevi and melanoma in adults: A multicenter retrospective case series

To the Editor: The halo nevus is thought to be of little concern in children. In adults, however, a new-onset halo nevus has been suggested to be a harbinger of melanoma either within the halo nevus or at distant cutaneous or noncutaneous sites, according to case reports and small case series.[1,2] Multiple widely used dermatologic reference texts[3,4] and online references (eg, UpToDate.com, DermNetNZ.org) advocate extensive melanoma screening in adults with new-onset halo nevus, including full cutaneous, oral, ophthalmic, and vaginal examinations, despite limited evidence supporting an association between halo nevus and melanoma. We aimed to further investigate the association between new-onset halo nevus and melanoma in adults by evaluating the incidence of melanoma in the year after a new halo nevus diagnosis.

A multicenter retrospective chart review of clinical and histopathologic records at 8 university hospitals identified 879 patients in whom 888 halo nevi were diagnosed at aged 18 years or older (Brigham and Women's Hospital [n = 80], Massachusetts General Hospital [n = 166], New York University [n = 7], Northwestern University [n = 36], Oregon Health & Science University [n = 103], University of Pennsylvania [n = 27], Huntsman Cancer Institute and the University of Utah [n = 364], and Yale University [n = 96]). Ethical approval was obtained from each university's institutional review board. Patients being treated with immunotherapy for melanoma were excluded.

Mean age at halo nevus diagnosis was 36.3 years (standard deviation 13.2 years) (Table I). Clinical records review identified 95 occurrences of melanoma in these 879 patients. Only 9 halo nevi were diagnosed within 1 year before melanoma diagnosis, representing a melanoma incidence rate of 0.01 (95% confidence interval 0.004-0.017) per person per year. All 9 of these melanomas represented primary cutaneous melanoma; there were no occurrences of primary noncutaneous melanoma, metastatic melanoma, or melanoma within the incident halo nevus. None of these 9 patients presented with multiple halo nevi. The remaining 86 melanoma

Table I. Patient demographics

Characteristic	All patients with HN, n = 879	Patients with melanoma diagnosed in the year after a new HN, n = 9	Patients without melanoma diagnoses, n = 784
Mean age at HN diagnosis ± SD, y	36.3 ± 13.2	39.1 ± 11.9	35.3 ± 12.7
18–39	580 (66)	5 (55.6)	540 (68.9)
40–59	212 (24.1)	4 (44.4)	174 (22.2)
60–79	68 (7.7)	0	51 (6.5)
≥80	1 (0.1)	0	1 (0.1)
Unknown	18 (2.0)	0	18 (2.3)
Mean age at melanoma diagnosis ± SD, y	39.4 ± 14.7	40.4 ± 11.8	NA
Sex			
Men	348 (39.6)	5 (55.6)	307 (39.3)
Women	529 (60.2)	4 (44.4)	475 (60.6)
Unknown	2 (0.2)	0	2 (0.3)
Race			
White	799 (90.9)	9 (100)	711 (90.7)
Nonwhite	18 (2.0)	0	17 (2.2)
Unknown	62 (7.1)	0	56 (7.2)
Halo nevus biopsied			
Yes	396 (45.1)	6 (66.7)	345 (44.0)
No	474 (53.9)	3 (33.3)	431 (55.0)
Unknown	9 (1.0)	0	8 (1.0)
Vitiligo			
Yes	78 (8.9)	2 (22.2)	70 (8.9)
No	450 (51.2)	3 (33.3)	391 (49.9)
Unknown	351 (39.9)	4 (44.4)	323 (41.2)

Values are provided as No. (%) unless otherwise indicated.
HN, Halo nevus; *NA*, not applicable; *SD*, standard deviation.

diagnoses occurred either before the halo nevus diagnosis (n = 78) or greater than 1 year after (n = 8) (mean 5.75 years [standard deviation 4.30 years]). Personal history of vitiligo was not significantly associated with odds of melanoma development within the year after an incident halo nevus (odds ratio 3.97; 95% confidence interval 0.65-24.2; $P = .13$).

Limitations of the study include the retrospective design and heterogeneity by which each site identified halo nevus cases. Halo nevus and melanoma were identified by documentation and coding that may not accurately reflect the true date of onset or incidence.

In conclusion, this study found that adult-onset halo nevi were associated with a 1% risk of primary cutaneous melanoma development in the year after halo nevus diagnosis, with no cases of primary noncutaneous or metastatic melanoma. This melanoma risk is comparable to that of individuals with a history of atypical nevi or personal or family history of melanoma.[5] Given these findings, we recommend annual total body skin examinations in adults with a new diagnosis of halo nevus and without additional risk factors, and we do not advocate reflexive screening for primary noncutaneous or metastatic melanoma.

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Prevalence estimates for lichen planopilaris and frontal fibrosing alopecia in a New York City health care system

To the Editor: Few studies have examined the epidemiology of lichen planopilaris (LPP) and frontal fibrosing alopecia (FFA), and they are limited by small sample sizes.[1-3] The true overall prevalence of LPP and FFA is unknown. To address this, we performed a retrospective cohort study at Columbia University Irving Medical Center.

We queried electronic health records from *NewYork-Presbyterian Hospital and* Columbia-Doctors for patients with *International Classification of Diseases*, 10th Revision, code L66.1 (LPP, FFA) between 2015 and 2018. A medical record review was performed to verify that the findings for all patients were consistent with LPP/FFA based on clinical or histologic criteria (Supplemental methods, Supplemental Table I, available via Mendeley at https://data.mendeley.com/datasets/ytf9wf6nfs/1).[4] All patients in the health system without LPP or FFA between 2015 and 2018 were used as controls.

Of 1,189,507 patients seen between 2015 and 2018, 381 had an *International Classification of Diseases*, 10th Revision, code L66.1, and 376 of these patients met clinical criteria for LPP (n = 203) or FFA (n = 173). Of the 223 available biopsy samples reviewed, 204 met criteria for LPP or FFA. Table I lists their demographic characteristics.

Women in the combined LPP and FFA group outnumbered men (81.4% vs 18.7%), with an odds ratio of 3.31 (95% confidence interval, 2.55-4.29). Patients in the combined group were most commonly in their 60s (24.1%). When separated into the LPP or FFA subgroups, LPP was most commonly seen in the third to fifth decades (58.4%), and FFA was most commonly seen in the fifth and sixth decades (57.4%). Patients in the combined group were most frequently White (48.2%) (odds ratio, 1.77; 95% confidence interval, 1.44-2.19). Of those, 67.6% were non-Hispanic.

We observed an overall crude prevalence of 0.032% (14.3 cases per 100,000 persons) and a sex- and age-adjusted prevalence of 0.028% for the combined group (Table II, Supplemental Table II). The overall crude prevalence was 0.017% for LPP and 0.015% for FFA. The age- and sex-adjusted prevalence was 0.016% for LPP and 0.012% for FFA. Women had a higher adjusted disease prevalence overall (0.023% women; 0.006% men), although the ratio was more strongly skewed for FFA (0.012% women; 0.001% men) compared with LPP (0.011% women; 0.004% men). The adjusted prevalence of the combined group was highest in the groups aged 40 to 70 years. The prevalence for LPP was highest in the 41 to 50 year range (0.004%), and for FFA alone, it was highest between 51 and 60 years and 61 and 70 years (0.004%). The prevalence of the combined LPP and FFA group was highest among non-Hispanic Whites (0.091%).

Limitations include the retrospective analysis and imperfect standard to confirm the diagnosis. Our prevalence estimates may be an underestimate because some patients with a diagnosis before 2015 may not have been monitored in our system. A proportion of the patients did not have documented race/ethnicity.

To our knowledge, this is the largest study to date examining LPP and FFA prevalence across race/ethnicity and sex.[5] Most of our patients were women aged older than 50 years, corroborating published