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Hairy Legs Revisited: Peroneal Alopecia

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Background/Objectives: Peroneal alopecia (PA), also called anterolateral leg alopecia, is a common, often underreported and understudied type of hair loss in middle-aged men. It presents as large sharply demarcated alopecic patches symmetrically over the anterolateral aspects of the legs, reflecting the distribution of the peroneal nerve. The underlying etiology is poorly understood. Suggested associations include friction from tight fitting clothing, androgenetic alopecia, thyroid disease, diabetes, and peripheral vascular disease. This study aims to review these reported associations in our subset of patients.

Methods: We conducted a cross-sectional study in our outpatient dermatology clinic. 50 consecutive men aged ≥ 50 years who presented for routine full body skin exams were included. Routine skin examination was performed including evaluation for androgenetic alopecia using the Norwood-Hamilton scale. Medical history included inquiry of known diabetes, peripheral vascular disease or cardiac disease, and family history of androgenetic alopecia. We asked all patients if they wore tight fitting socks or clothing on a regular basis.

Results: We detected PA in 42% of men (n=21). Personal and family history of androgenetic alopecia was common, 46% and 48% respectively. In patients with PA,

androgenetic alopecia occurred in 57% (n=12) compared to the 37% (n=11) without PA. The prevalence of diabetes and vascular disease was comparable to the general population and occurred similarly in those with and without PA. Regular use of tight fitting socks was reported in only 5 patients with the majority (n=4) found to have PA, though these patients often hypothesized this to be the cause of their hair loss. (See table 1)

Limitations: Small sample size and the selected age cut-off may not capture the true prevalence of this entity. The study does not incorporate dermoscopy or histopathology which can be helpful in distinguishing types of alopecia.

Conclusion: PA is an extremely common form of hair loss in middle-aged men. This study represents the largest study of PA to date. We failed to identify any clear correlation in this study though personal and family history of androgenetic alopecia was a common association. We plan to extend our study and examine such patients further to determine a statistically significant pathogenesis.

Table 1: Incidence of peroneal alopecia.

	Present n=21 (42%)	Absent n=29 (58%)	Total n=50
<i>Androgenetic Alopecia</i>	12 (57)	11 (37)	23 (46)
<i>FHx Androgenetic Alopecia</i>	13 (61)	11 (37)	24 (48)
<i>Diabetes</i>	4 (19)	3 (10)	7 (14)
<i>Vascular Disease</i>	6 (29)	9 (31)	15 (30)
<i>Tight Fitting Socks</i>	4 (19)	1 (3)	5 (10)

FHx, family history of

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