

Purple Papules on a Man's Scalp

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An 87-year-old man presented for a routine skin examination. On physical examination, he was noted to have scattered, 6- to 10-mm, asymptomatic purple lesions on his scalp. The lesions appeared clinically consistent with seborrheic keratosis, and he was noted to have other scattered seborrheic keratoses on his face and trunk.

On questioning, the patient acknowledged the use of a purple shampoo called Shimmer Lights by Clairol, to counteract the yellowing of his gray hair. Dermoscopy, both polarized and nonpolarized, was performed to clarify the diagnosis.

On polarized dermoscopy, the lesions appeared as discrete papules with sharp edges and diffuse purple discoloration that was concentrated at the periphery (**Figure 1**).



Figure 1. Polarized dermoscopy image of seborrheic keratoses on the scalp.

No vessels or features of melanocytic lesions were noted. On nonpolarized contact dermoscopy (**Figure 2**), the lesions demonstrated a keratotic surface with small comedo-like openings, supporting the diagnosis of seborrheic keratosis.



Figure 2. Nonpolarized dermoscopy of seborrheic keratoses on the scalp.

Discussion. Purple shampoos are temporary colorants that have the potential to discolor not only the hair, but also lesions such as seborrheic keratoses. The intended use is to limit the “brassiness” or yellow-discoloration most commonly in individuals with gray or blond hair color. Blue shampoos work similarly but are directed toward orange and copper-toned hair.¹ The primary mechanism is chromatic opposition, demonstrated classically by the color wheel.^{2,3} Temporary hair colorants are deposited on the surface of the hair and may also deposit on the skin.⁴ The verrucous surface of seborrheic keratoses in effect increases the surface area, allowing more

colorant to deposit, which in turn can intensify the color. This may account for the striking purple color of the keratoses.

References:

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