

Entodermoscopy of *Pediculosis capitis*



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CLINICAL PRESENTATION

A 3-year-old girl presented to the Dermatology department with a 2-month history of itchy scalp. Dermatologic examination revealed nits firmly attached to the parietal and occipital scalp hair shafts.

Dermatoscopic appearance

Dermatoscopy showed empty nits (Fig 1, A) and several lice feeding on blood (Fig 1 B, Video 1, available on www.jaad.org), confirming the diagnosis of pediculosis capitis. The video shows blood moving along the



Fig 1. Pediculosis capitis. **A**, Empty nit: Translucent, ovoid structure, with a flattened free end attached to the base of the hair shaft. **B**, Louse feeding on blood from the scalp (magnification: $\times 20$ [mobile phone camera (iPhone 8, Apple Inc); magnification: $\times 2$] attached to a handheld dermatoscope (DermLite DL4, 3Gen); magnification: $\times 10$).

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parasite's digestive system and a louse running from the light. Images were acquired using a handheld dermatoscope with a 10-time magnification (DermLite DL4, 3Gen) attached to a smartphone with a 2-time optical zoom (iPhone 8, Apple Inc). Total magnification was $\times 20$.

KEY MESSAGE

Head lice infestation is caused by *Pediculus humanus var capitis*, an obligatory human hematophagous ectoparasite. Lice typically avoid light and move quickly, so their detection becomes easier in heavy infestations. Entodermoscopy uses the dermatoscope in the diagnostic work-up of infectious and parasitic dermatoses.^{1,2} This approach enables identification of the pathogen and observation of its behavior in its natural environment. Dermatoscopy is a noninvasive tool that helps diagnose pediculosis and facilitates treatment monitoring with minimal discomfort to the patient. Using polarized dermatoscopy, the body of the louse becomes translucent so that one can easily observe blood moving along the digestive tube of the parasites (Fig 1 B, Video 1). Empty nits are ovoid, translucent, and have a flat free ending. They can be differentiated from pseudonits, which are caused by seborrheic dermatitis, and which are whitish, easily detachable, amorphous structures. In addition, *in-vivo* morphologic details of nits, nymphs, and adult lice can be appreciated using this method.

Conflicts of interest

None disclosed.

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