SHORT COMMUNICATIONS

Autosensitization Due to Pediculosis Capitis (A “Pediculid”) in a 16-Year Old Female: A Case Report

Logan J. Kolb, DO¹, Emma Hignett, BS², Pearl Kwong, MD, PhD¹

¹Department of Dermatology, HCA Healthcare/Mercer University School of Medicine/Orange Park Medical Center, Orange Park, FL
²University of Central Florida College of Medicine, Orlando, FL

A 16-year-old Indian female presented for a generalized, pruritic eruption of two weeks duration. Hydrocortisone cream, oral antihistamines, and permethrin provided minimal relief. She denied recent travel or new medications. Physical examination revealed generalized, excoriated erythematous papules and plaques with associated periorbital edema (Figure 1 & 2). No mucosal changes or lymphadenopathy were noted.

Lesional and perilesional biopsies revealed a mixed perivasculaer lymphocyte-rich infiltrate with conspicuous eosinophils and negative direct immunofluorescence. Labs revealed peripheral eosinophilia and negative celiac markers; therefore, a tentative diagnosis of hypersensitivity reaction was reached. The patient was started on prednisone 40mg daily, triamcinolone cream BID, and hydroxyzine 50 mg QHS.

At one-week follow-up, the patient had minimal improvement and recalled having a slumber party with a contact with visible nits of her scalp. Upon reexamination, numerous nits were observed on the hair shafts 1-4 cm from the scalp (Figure 3). Subsequently, the diagnosis of pediculosis capitis with an associated pediculid reaction was made. She was given two doses of oral ivermectin 10-days apart and a 3-week prednisone taper. The decision to treat with ivermectin was made because the patient refused to cut her hair and believed that current topical treatments were “toxic”. Immediate family members were treated with topical ivermectin.

Pediculosis capitis is an infestation of the scalp by the head louse Pediculus humanus capitis. The development of disseminated eczematous lesions as a result of the primary localized rash is known as an “Id” reaction; commonly reported in association with stasis dermatitis, tinea, or scabies.¹ Autosensitization secondary to pediculosis capitis was first reported in 1946, and to our knowledge, this is just the fourth report of a pediculid case.²,³ Histopathologic examination of Id lesions shows acute spongiotic dermatitis with lymphocytic inflammation and eosinophils, as was seen in our patient.¹ Treatment of Id reactions are twofold: suppressing inflammation with systemic corticosteroids, but most importantly, treating the underlying suspected source of hypersensitivity. In our case, the patient’s symptoms responded...
minimally to prednisone until adequate anti-
pediculosis treatment was instituted.

Figure 1. Mildly erythematous, scaly papules
coalescing on forehead, temple and cheek with
peri orbital edema.

The prevalence of louse infections has
increased over recent decades and is not
limited to lower socioeconomic groups.\textsuperscript{4}
Interestingly, increased resistance to topical
permethrin has been found in higher
socioeconomic communities.\textsuperscript{4}
The treatment of pediculosis capitis is often challenging
due to increasing louse resistance, patient
refusal to cut the affected hair, and
increasing cost of treatment. There has
been an emergence of lice removal centers
that utilize machines to deliver intense heat
to lice and nits; however, these treatments
are costly to patients and are supported by
small studies.\textsuperscript{5} There is also a trend
towards refusal of topical treatment by
patients due to fear of “chemicals” and
preference towards treatments considered
more natural (e.g. essential oils). Modern-
day practices of taking “selfies” with friends
and the taboos of disclosing personal
infestation, which both played a role in
acquiring the infestation in our patient, will
pose challenges in decreasing the
incidence. Practitioners should be aware of
these current trends, evolving treatments,
and the presence of id reactions related to
pediculosis.

Figure 2. Numerous excoriation macules and
papules of bilateral upper and lower extremities with
sparing of the palms.
Figure 3. Numerous nits identified on scalp hair view under dermoscopy (inset: nit on hair shaft submerged in mineral oil, observed at 10x magnification)

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Corresponding Author:
Logan Kolb, DO
210 9th St SE
Rochester, MN 55904
507-292-7255
Loganjkolb@gmail.com

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