

Perioral Dermatitis: An Acneiform Eruption

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Perioral dermatitis, a common acneiform eruption of unknown etiology, is usually seen in young women and is rare in children and adolescents.¹⁻⁶ First described by Frumess et al⁷ in 1957 as a light-sensitive seborrheid, the eruption was renamed in 1964 by Mihan et al⁸ as *perioral dermatitis*. It has been described in the pediatric population from age 7 months to 14 years—with the median age in the prepubertal period—appearing as papules, pustules, or vesicles periorally (similar to that in adults) but with a greater tendency to appear periorbitally or perinasally.^{2,4,9,10} Females predominate those affected; however, in children and adolescents, the percentage of male patients is greater than that in the adult population.^{1,2,4,9} The dermatitis usually affects the white population (children and adults), with the exception of a benign, self-limited granulomatous variant seen in black children since 1989.^{4,11-13} Although many inciting factors have been proposed, including topical corticosteroids, there is still no definite established cause for perioral dermatitis in children or adults.

Clinical Presentation

Perioral dermatitis appears as discrete, symmetrical, grouped, erythematous papules, pustules, or vesicles that are usually 1 to 3 mm² in diameter and are located periorally and on the chin.^{1,2,9} These papules may have an erythematous diffuse base, and characteristically spare the central sulcus of the upper vermilion border. Rare in children, these lesions also may be located periorbitally, including on the glabella and eyelids, and perinasally, along the nasolabial folds and nasal alae.^{2,4,9} This is an acneiform eruption that does

not contain comedos. Scaling also may be present. The eruption is rarely pruritic; however, it may induce a burning sensation. The granulomatous perioral dermatitis described in black children also appears clinically as perioral, perinasal, or periorbital discrete flesh-colored or erythematous papules that resolve months to years later without scar formation or other sequelae.^{4,11-15} These are analogous to the granulomatous perioral dermatitis seen in adults as flesh-colored perinasal and perioral papules with mild erythema.¹⁶

Histologic Presentation

Although not diagnostic, histologic examination reveals spongiosis and edema in the follicular infundibulum that may continue into the overlying epidermis. Mild mononuclear cell exocytosis and perivascular lymphohistiocytic infiltration are usually seen. Rarely, there may be numerous plasma cells. Telangiectases and elastosis are usually absent; however, granulomatous areas may be present.^{4,14-18}

Differential Diagnosis

Clinically, perioral dermatitis resembles other papulovesicular or papulopustular acneiform eruptions. Other diseases, such as adolescent and neonatal acne, seborrheic dermatitis in infants, atopic dermatitis, contact dermatitis, eruptive syringomas, flat warts, intertrigo, impetigo, fungal infections, and infective dermatitis associated with the human T-lymphotrophic virus type 1,^{19,20} should be ruled out before making the diagnosis of perioral dermatitis. Because of the granulomatous variant of perioral dermatitis, the clinician must also rule out sarcoidosis.^{4,17,18} Hypozincemia producing an enteropathicalike syndrome also may spare the vermilion border of the lip, as seen in perioral dermatitis.²¹

Etiology

Although many instigating factors have been proposed, the definitive cause of perioral dermatitis in

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both children and adults remains unknown. Discrepancies exist about the role of cosmetics, moisturizers, fluorinated toothpastes, contact irritants or allergens, and potent topical corticosteroids; however, topical corticosteroids remain the best documented suspected agent in children.^{2,5,9,15,22} One patient had perioral dermatitis induced by inhaled corticosteroid therapy.²³ Another report examined the relationship of perioral dermatitis with atopy and gastrointestinal colonization with *Candida albicans* and subsequently found no existing association.⁹

Treatment

For children with perioral dermatitis, including the granulomatous variant, topical metronidazole has been used safely and effectively.^{2,9,24-28} This may be either the 0.75% metronidazole gel or the metronidazole 1% to 2% oil-in-water suspension used twice daily. Oral or topical erythromycin may also be used in combination therapy or as an alternative monotherapy.^{3,9,26} Oral tetracycline, although an effective therapeutic agent in adults, is contraindicated in young children and adolescents because of resulting dental enamel discoloration. If the patient is already using a topical fluorinated corticosteroid, it should be discontinued.⁹ Although the addition of a mild—potency topical corticosteroid for weaning and prevention of rebound flare-ups remains controversial, hydrocortisone 1% cream daily has been used effectively as both monotherapy and as an additional agent in combination therapy with topical metronidazole and oral erythromycin.^{2,3,5,26}

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