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What's the best treatment for cradle cap?

Evidence-based answer

Ketoconazole (Nizoral) shampoo appears to be a safe and efficacious treatment for infants with cradle cap (strength of recommendation [SOR]: **C,** consensus, usual practice, opinion, disease-oriented evidence, and case series). Limit topical corticosteroids to severe cases because of possible systemic absorption (SOR: **C**). Overnight application of emollients followed by gentle brushing and washing with baby shampoo helps to remove the scale associated with cradle cap (SOR: **C**).

Clinical commentary

If parents can't leave it be, recommend mineral oil and a brush to loosen scale

Cradle cap is distressing to parents. They want everyone else to see how gorgeous their new baby is, and cradle cap can make their beautiful little one look scruffy. My standard therapy has been to stress to the parents that it isn't a problem for the baby.

If the parents still want to do something about it, I recommend mineral oil and a soft brush to loosen the scale. Although no evidence supports this, it seems safe and is somewhat effective.

This review makes me feel more comfortable with recommending ketoconazole shampoo when mineral oil proves insufficient. For resistant cases, a cute hat can work wonders.

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FAST TRACK

If parents need to do something, recommend applying mineral oil and brushing to loosen the scale

Evidence summary

Cradle cap is a form of seborrheic dermatitis that manifests as greasy patches of scaling on the scalp of infants between the second week and sixth month of life.[1,2] Untreated, it usually resolves at 8 months.[1] It's generally nonpruritic and doesn't bother the infant, though it can be a stressor for parents.[1]

Researchers have noted a potential link with increased concentrations of the yeast *Malassezia furfur* (formerly *Pityrosporum ovale*), but a causative mechanism has not been identified.[1,2] Overnight use of emollients such as mineral oil to soften scales followed by gentle brushing and washing with baby shampoo is an accepted treatment, although no trials could be found to show its efficacy for infants.[1,3]

Numerous treatments for seborrheic dermatitis with proven efficacy for adults have been adopted for use for infants. These include topical antifungals, antidandruff shampoos with zinc pyrithione or selenium sulfide, coal tar preparations, and episodic topical corticosteroids.[1,4] Although each of these agents is used for infants with cradle cap, significantly sized randomized controlled trials in this age group are essentially absent.

Although limited evidence exists for seborrhea treatment in any age group, ketoconazole shampoo appears to be backed by the strongest evidence. For example, an uncontrolled multicenter trial with 575 adults found ketoconazole shampoo was superior to placebo for treatment of scalp seborrheic dermatitis with an 88% "excellent response" rate ($P<.0001$, no relative risk or confidence intervals given).[4]

Based on small studies, ketoconazole appears safe and effective for infants. A small (n=13) phase I safety trial of infants demonstrated that ketoconazole shampoo applied twice weekly for 1 month resulted in no detectable serum ketoconazole levels or elevation in liver function tests.[5] In another small (n=19) uncontrolled study of once-daily ketoconazole 2% cream, 79% of infants affected with seborrheic dermatitis of the scalp and diaper area showed good response by day 10 (no statistical methods reported). Peak plasma ketoconazole levels in this study were only 1% to 2% of those documented after systemic administration.[6]

Studies conducted on topical steroids have also shown weak data. An unblinded uncontrolled comparative study of 2% ketoconazole cream and 1% hydrocortisone cream in the treatment of infantile seborrheic dermatitis revealed no statistical difference (31% vs 35%) in severity for 48 infants. All skin lesions in both treatment groups were cleared by the end of the second week of treatment.[2]

Multiple authors note safety concerns when considering treatment for mild and self-limited conditions such as cradle cap. Several studies have demonstrated systemic absorption and, in some cases, adrenocortical suppression when using mild topical steroids such as 1% hydrocortisone cream in pediatric populations.[1,3,7]

Recommendations from others

The guidance from PRODIGY (the UK's National Health Service primary care database) recommends regular washing with baby shampoo followed by gentle brushing. Alternatively, softening the scale with mineral oil, followed by gentle brushing and shampooing is an alternative approach. Ketoconazole 2% shampoo or cream once a day has been shown to be effective; PRODIGY recommends avoiding topical corticosteroids.[1]

A review article recommends daily shampooing with an unmedicated shampoo. If this doesn't work, the authors recommend trying a dandruff shampoo and softening the scales with mineral oil before washing.[8] While the American Academy of Dermatology has no official guidelines on this subject, their patient-oriented pamphlet *Dermatology Insights* suggests that "cradle cap is treated with anti-dandruff or baby shampoo, with or without hydrocortisone lotion or cream, depending on the severity."[9] ■

Acknowledgments

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FAST TRACK

Systemic absorption—and, sometimes, adenocortical suppression—are an issue with mild topical steroids in children