Systemic Absorption

The possibility of producing systemic side effects from absorption of topical steroids is of concern to all physicians who prescribe these agents. Topical corticosteroids can cause iatrogenic Cushing disease and adrenal suppression. Populations at greater risk are infants and young children, patients with an impaired cutaneous barrier, and patients in whom highly potent corticosteroids are applied over large areas or under occlusion. The risk of systemic absorption can be reduced by using pulse application of more potent corticosteroids (weekends only or 2 weeks on/1 week off), by using medication "holidays," by using the minimally effective strength and dose of medication, and by using steroid-sparing agents.

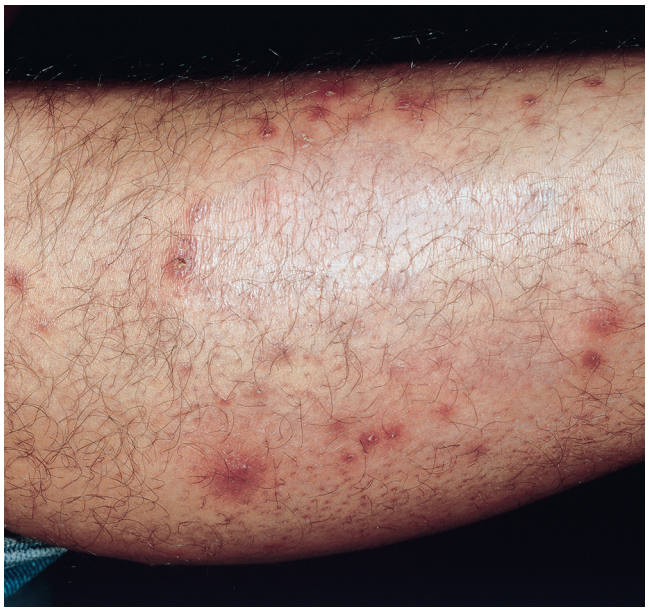

FIGURE 2-6 Infection following occlusion. Pustules have appeared at the periphery of an eczematous lesion. Plastic dressing had been left in place for 24 hours.

Adverse Reactions

Because information concerning the potential dangers of potent topical steroids has been so widely disseminated, some physicians have stopped prescribing them. Topical steroids have been used for approximately 50 years with an excellent safety record. They do, however, have the potential to produce a number of adverse reactions. Once these are understood, the most appropriate strength steroid can be prescribed confidently. Reported adverse reactions to topical steroids are listed in Box 2-2. A brief description of some of the more important adverse reactions is presented in the following pages.

BOX 2-2 Adverse Reactions to Topical Steroids

- Rosacea, perioral dermatitis, acne
- Skin atrophy with telangiectasia, stellate pseudoscars (arms), purpura, striae (from anatomic occlusion, e.g., groin)
- Tinea incognito, impetigo incognito, scabies incognito
- Ocular hypertension, glaucoma, cataracts
- Allergic contact dermatitis
- Systemic absorption
- Burning, itching, irritation, dryness caused by vehicle (e.g., propylene glycol)
- Miliaria and folliculitus following occlusion with plastic dressing
- Skin blanching from acute vasoconstriction
- Rebound phenomenon (e.g., psoriasis becomes worse after treatment is stopped)
- Nonhealing leg ulcers; steroids applied to any leg ulcer retard healing process
- Hypopigmentation
- Hypertrichosis of face

Steroid Rosacea and Perioral Dermatitis (Figures 2-7 to 2-11)

Steroid rosacea is a side effect frequently observed in fair-skinned females, who initially complain of erythema with or without pustules—the "flusher blusher complexion." In a typical example, the physician prescribes a mild topical steroid, which initially gives pleasing results. Tolerance (tachyphylaxis) occurs, and a new, more potent topical steroid is prescribed to suppress the erythema and pustules that may reappear following the use of the weaker preparation. This progression to more potent creams may continue until group II steroids are applied several times each day. Figure 2-7 shows a middle-aged woman who has applied a group V steroid cream once each day for 6 months. Intense erythema and pustulation occurs each time attempts are made to discontinue topical treatment. The skin may be atrophic and red with a burning sensation.

Perioral dermatitis (see Figure 2-9) is sometimes caused by the chronic application of topical steroids to the lower face; pustules, erythema, and scaling occur around the nose, mouth, and chin.

Management. Strong topical steroids must be discontinued. Doxycycline (100 mg once or twice a day) or erythromycin (250 mg four times a day) may reduce the intensity of the rebound erythema and pustulation that predictably occur during the first 10 days (Figures 2-7 to 2-11). Occasionally, cool, wet compresses, with or without 1% hydrocortisone cream, are necessary if the re-