adhesion within the stratum corneum and a failure of desquamation.

MORPHOLOGY

All forms of ichthyosis exhibit a buildup of compacted stratum corneum that is associated with loss of the normal basket-weave pattern (Fig. 25-20*B*). There is generally little or no inflammation. Variations in the thickness of the epidermis and the stratum granulosum and the gross appearance and distribution of lesions are used to subclassify these disorders.

Acute Inflammatory Dermatoses

Literally thousands of inflammatory dermatoses have been described. In general, acute lesions last from days to weeks and are characterized by inflammatory infiltrates (usually composed of lymphocytes and macrophages rather than neutrophils), edema, and variable degrees of epidermal, vascular, or subcutaneous injury. Chronic lesions, on the other hand, persist for months to years and are often associated with changes in epidermal growth (atrophy or hyperplasia) or dermal fibrosis. The lesions discussed here are examples of the more commonly encountered acute dermatoses.

Urticaria

Urticaria (hives) is a common disorder of the skin characterized by localized mast cell degranulation and resultant dermal microvascular hyperpermeability. This combination of effects produces pruritic edematous plaques called *wheals.* Angioedema is closely related to urticaria and is characterized by edema of the deeper dermis and the subcutaneous fat.

Urticaria most often occurs between ages 20 and 40, but all age groups are susceptible. Individual lesions develop and fade within hours (usually less than 24 hours), and episodes may last for days or persist for months. Sites of predilection for urticarial eruptions include any area exposed to pressure, such as the trunk, distal extremities, and ears. Persistent episodes of urticaria may herald an underlying disease (e.g., collagen vascular disorders, Hodgkin lymphoma), but in the majority of cases no underlying cause is identified.

Pathogenesis. **Urticaria is most commonly the result of antigen-induced release of vasoactive mediators from mast cells but there are other less common causes as well.**

- *Mast cell-dependent, IgE-dependent*. Urticaria of this type follows exposure to many different antigens (pollens, foods, drugs, insect venom), and is an example of a localized immediate hypersensitivity (type I) reaction triggered by the binding of antigen to IgE antibodies that are attached to mast cells through Fc receptors (Chapter 6).
- *Mast cell-dependent, IgE-independent*. This subset results from substances that directly incite the degranulation of mast cells, such as opiates, certain antibiotics, curare, and radiographic contrast media.
- *Mast cell-independent, IgE-independent*. These forms of urticaria are triggered by local factors that increase vascular permeability. One form is initiated by exposure to chemicals or drugs, such as aspirin, that inhibit cyclooxygenase and arachidonic acid production. The precise mechanism of aspirin-induced urticaria is unknown. A second form is *hereditary angioneurotic edema* (Chapter 6), caused by an inherited deficiency of C1 inhibitor that results in excessive activation of the early components of the complement system and production of vasoactive mediators.

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Lesions vary from small, pruritic papules to large edematous plaques (Fig. 25-21*A*). Individual lesions may coalesce to form annular, linear, or arciform configurations. The histologic features of urticaria may be very subtle. There is usually a sparse superficial perivenular infiltrate consisting of mononuclear cells and rare neutrophils. Eosinophils may also be present. Collagen bundles are more widely spaced than in normal skin, a result of superficial dermal edema (Fig. 25-21*B*). Superficial lymphatic channels are dilated due to increased absorption of edema fluid. There are no changes in the epidermis.

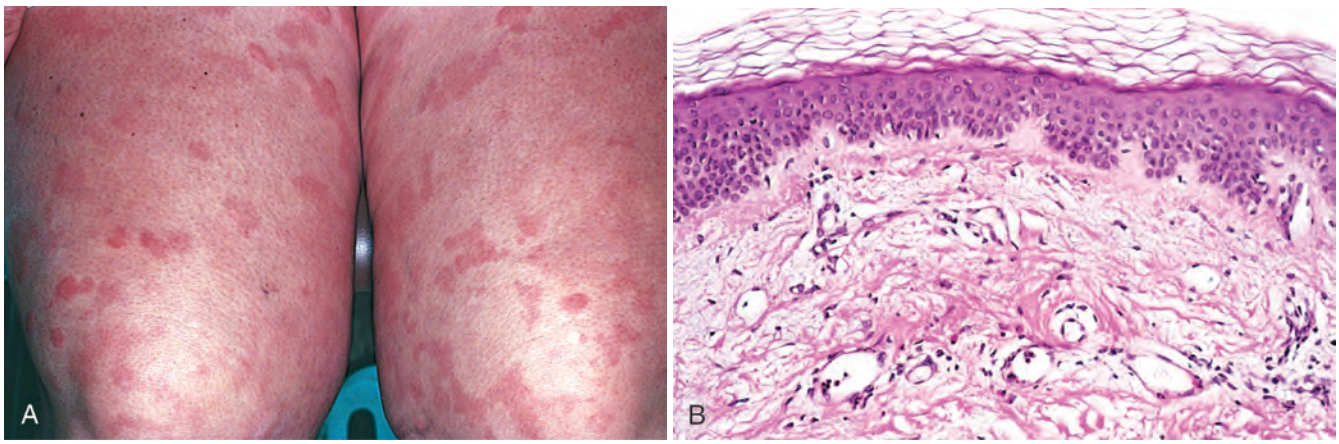

Figure 25-21 Urticaria. **A,** Erythematous, edematous, often circular plaques are characteristic. **B,** Histologically, there is superficial dermal edema, manifested by spaces between collagen bundles, and dilated lymphatic and blood-filled vascular spaces; the epithelium is normal.