

**Fig. 9.5 Histopathology of Sweet's disease.**  
Dense neutrophilic infiltration on the entire dermis without apparent vasculitis.

laboratory finding. An elevated erythrocyte sedimentation rate and high CRP levels are also present. Sweet's disease is often associated with an underlying disease. It is necessary to determine whether the primary disease is lymphoma (myelodysplastic syndrome, leukemia), malignant internal-organ tumor or autoimmune disease.

#### Treatment

Oral administration of corticosteroids, potassium iodides, NSAID and colchicines are the main treatments. Antibiotics are ineffective.

#### Prognosis

Without treatment, the eruption may persist for weeks or even months. Patients with cancer may see frequent recurrences.

### 4. Palmar erythema ★ ★

#### Clinical features

Palmar erythema is observed in several conditions.

#### Pathogenesis

Palmar erythema is a vascular acrosyndrome with multiple etiologies. Best known in pregnancy, liver diseases and collagen diseases (e.g., erythematosus, dermatomyositis, rheumatic arthritis), it can occur in a variety of other systemic disturbances. Palmar erythema may be related to elevated serum estrogens and related 17-cetosteroid hormones. In rare cases it occurs hereditarily in otherwise healthy people.

Refer to Chapter 18 for erythema nodosum and erythema induratum.

## B. Annular erythema ★ ★

Annular erythema is a general term for diseases in which small erythema appear and then spread centrifugally. It begins with small erythema that enlarge centrifugally while resolving in the center, resulting in a ring shape. It may involve an underlying disease, such as an infectious disease, malignant tumor, drug eruption or collagen disease. Annular erythema is classified according to the underlying disease and the clinical features (**Table 9.5**). Refer to Chapter 12 for Sjögren syndrome and the annular erythema associated with LE.

**1. Erythema annulare centrifugum (EAC) ★★**

Synonyms: Darier’s erythema annulare centrifugum

**Clinical features**

Erythema annulare centrifugum (EAC) most commonly affects young middle-aged adults. Infiltrated papules slowly enlarge and form a ring as the central area flattens and fades (Figs. 9.6-1 and 9.6-2). The disease may persist for many years.

**Pathogenesis**

It may involve interaction among inflammatory cells, their mediators and ground substances, as foreign antigens diffuse through the skin.

**Pathology**

The vessels of the upper and mid-dermis show dense perivascular lymphocytic sleeving.

**Treatment**

A search for the underlying cause is the primary goal of treatment. The systemic or topical application of corticosteroids and oral antihistamines may help.

**2. Erythema marginatum rheumaticum ★**

**Clinical features, Pathogenesis**

Erythema marginatum rheumaticum occurs in 5% to 30% of patients with active rheumatic fever. It begins as an erythematous macule or papule that extends outward while the skin in the center returns to normal. The edge of the eruption elevates slightly. The eruption is symptomless. The lesion fade in a few hours, or at most in 2 to 3 days. Recurrent crops may appear at intervals for many weeks. Deposition of antibodies and complements on the blood vessel walls suggests an association with immunoreaction. Although children are the most commonly affected by erythema marginatum rheumaticum, there are cases in adults.

**Treatment**

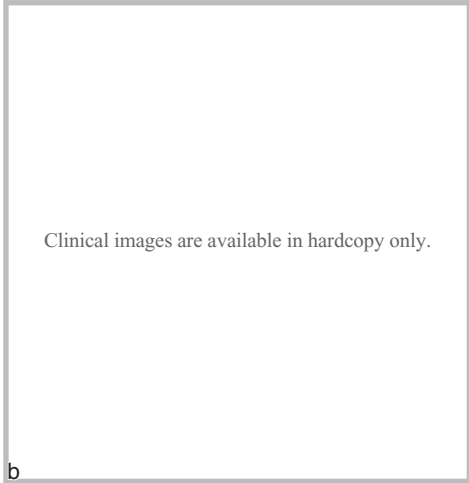
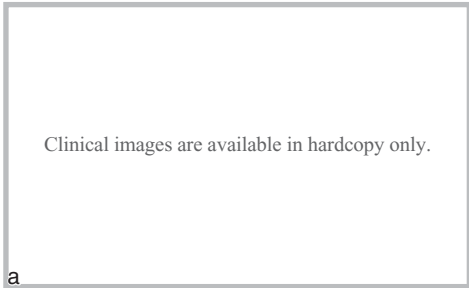
The treatments for rheumatic fever (systemic administration of antibiotics in very large doses) is effective.

**Prognosis**

The eruptions disappear spontaneously. The prognosis of rheumatic fever depends on coronary damage.

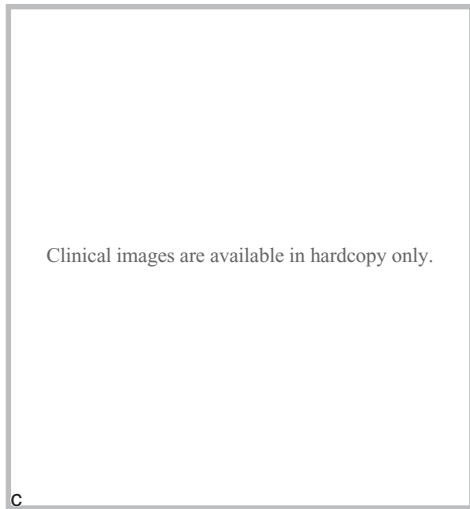
**Table 9.5 Classification of annular erythema.**

Eythema annulare centrifugum
Annular erythema associated with infection
• Erythema chronicum migrans
Annular erythema associated with collagen disease
• Annular erythema associated with Sjögren syndrome
• Neonatal lupus erythematosus
• Subacute cutaneous lupus erythematosus, annular/polycyclic
• Erythema marginatum rheumaticum
Annular erythema associated with neoplasms
• Erythema gyratum repens
• Necrolytic migratory erythema



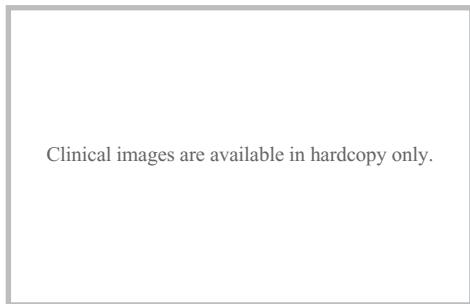
**Fig. 9.6-1 Erythema annulare centrifugum (EAC).**

a: On the abdomen. b: On the trunk. Edematous, slightly elevated erythema 1 cm to 5 cm in diameter. These sometimes expand centrifugally to 5 cm to 20 cm in diameter. The margins are usually elevated. Erythema annulare centrifugum presents one or more lesions on the entire body.



**Fig. 9.6-2 Erythema annulare centrifugum (EAC).**

c: On the upper arm.



**Fig. 9.7 Erythema gyratum repens.**

### 3. Erythema chronicum migrans (ECM) ★

#### Clinical features

Within 1 month after a tick bite, a papule or erythema occurs on the bitten site. It quickly enlarges centrifugally to form a characteristic ring-shaped eruption: The edge is scarlet and may elevate, and the center partly or totally fades. It is asymptomatic. The eruption may reach 40 cm in diameter. Erythema chronicum migrans (ECM) is the cutaneous hallmark of Lyme disease (refer to Chapter 28 for other symptoms and treatments of ECM).

#### Pathogenesis

ECM can be attributed to infection by *Borrelia burgdorferi*, a spirochete whose usual hosts are ticks of the genus Ixodes.

### 4. Erythema gyratum repens ★

Cutaneous eruptions of concentric raised erythematous bands move in waves over the body surface in a “wood grain” pattern. Accompanied by intense itching, they enlarge quickly (**Fig. 9.7**). The eruption is associated with internal malignancy. Immunoglobulin and immune complex deposit in the dermo-epidermal junction, suggesting the involvement of immunoreaction.

### 5. Necrolytic migratory erythema ★

Necrolytic migratory erythema is a marker for glucagonoma. It typically involves the face and the intertriginous areas. There is a cyclic pattern in the course of the eruption. Vesicles and pustules tend to become confluent. Irregular centrifugal expansions of the annular lesions coalesce into a map-like serpeginous pattern.

## Erythroderma ★★

#### Outline

- Erythroderma is the term applied to any inflammatory skin disease with erythema and scaling which affects more than 90% of the body surface.
- The causes are various.

#### Clinical features, Pathogenesis

Erythroderma is often of sudden onset. Patchy erythema which rapidly generalizes may be accompanied by desquamation (**Table 9.6, Figs. 9.8-1 and 9.8-2**). The underlying dermatologic disorder is often impossible to identify, but in some causes, patients have the specific clinical features of the original causative disorder. Intense itching is present. When the palms and soles are affected, erythroderma may cause acanthosis,