



to a primary disease such as SLE, rheumatic arthritis or hepatitis B. Unlike in ordinary urticaria, type I allergy is not involved in urticarial vasculitis. However, the immune complex that indicates the involvement of a type III allergy is present.

4. Food-dependent exercise-induced anaphylaxis (FDEIA) ★

Physical stress – from exercise, for example – 1 to 4 hours after ingestion of certain foods may cause anaphylaxis and urticaria simultaneously. In Japan, food-dependent exercise-induced anaphylaxis (FDEIA) is most often caused by wheat, followed in frequency by shrimp, oysters and celery. Since exercise or ingestion of specific foods alone does not cause FDEIA, an induction test is necessary to confirm and diagnose FDEIA.

Prurigo ★

Outline

- Prurigo is a condition in which there are independent itchy papules or small nodular eruptions.
- It is induced by insect bite, allergy, or atopic condition.
- It may be aggravated by rubbing, whereby small intractable nodules form.

Clinical features, Classification

In prurigo, papules or small urticarial nodules are accompanied by intense itching that becomes chronic. These nodules are called pruritic papules (Fig. 8.6). There are various etiologies and clinical features; however, the condition is thought to be a specific inflammatory reaction. Prurigo is characterized by exudative inflammatory lesions (Fig. 8.7) and by its failure to develop into the other types of eruptions that are seen with eczematous and dermatitis lesions. Prurigo remains as chronic papules and nodules. It is often categorized as acute or chronic.

Pathogenesis

Prurigo is exudative inflammation that occurs in the dermal upper layer. It is accompanied by lymphocytic or neutrophilic infiltration. It is thought to be induced by specific inflammatory reaction (pruritic reaction); however, the causative agent is unknown in many cases. Insect bites, mechanical or electrical stimulation, certain kinds of foods, and chemical stimulation such as by histamines are thought to be causative factors. Prurigo may also accompany malignant tumor, leukemia or Hodgkin's disease. Atopic dermatitis can also cause prurigo.

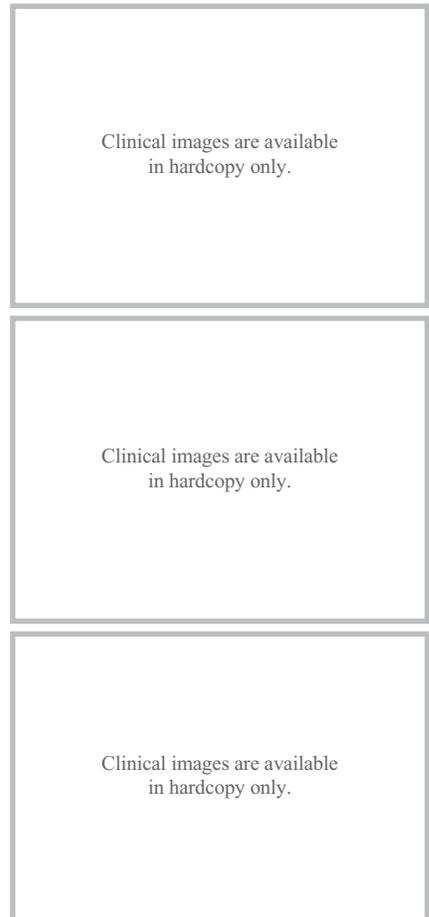


Fig. 8.6 Prurigo nodularis. Small, severely itchy nodules of 5 mm to 20 mm in diameter are noted. Excoriation is also seen.

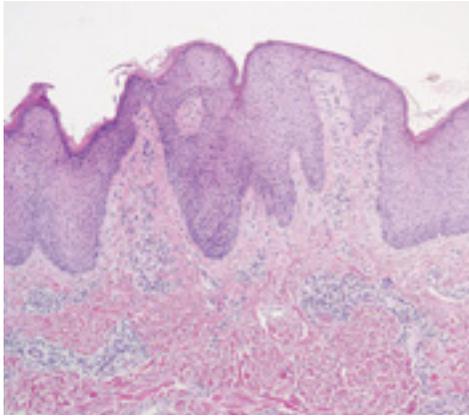


Fig. 8.7 Histopathological findings of prurigo nodularis.

Acanthosis and inflammatory cell infiltration in the upper dermis are noted. Excoriation induces even more severe acanthosis.

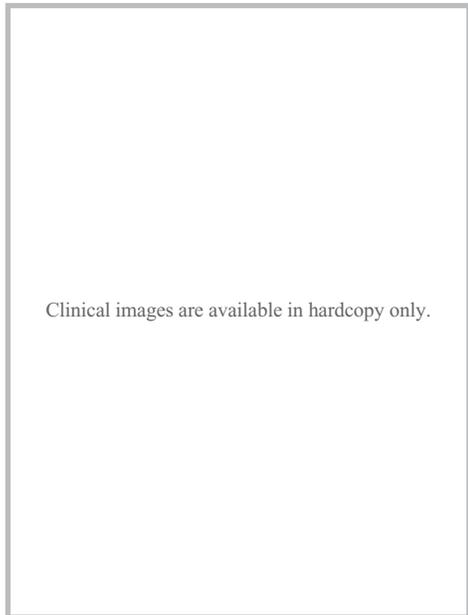


Fig. 8.8 Prurigo chronica multiformis.

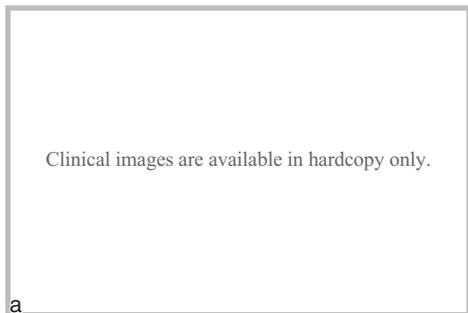


Fig. 8.9-1 Prurigo pigmentosa.

a: Chest lesion in a young male patient.

1. Acute prurigo ★

Synonym: Strophulus infantum

Clinical features

Urticarial erythema or wheals appear and become exudative papules, usually in small children. Secondary infection may be caused by rubbing and scratching brought on by intense itching. Although acute prurigo tends to last only several weeks, it tends to recur. Symptoms do not appear after the patient reaches a certain age.

Pathogenesis

Atopic condition and hypersensitive reaction to insect bite or certain foods (e.g., eggs, soybeans, pork) are known to be associated with the occurrence of prurigo. Children under age 5 are mostly affected in the summer, when insect stings are common.

Treatment

Topical steroids and oral antihistamines are the first-line treatment. Insect bites and intake of causative foods should be avoided.

2. Subacute prurigo

Synonym: Prurigo simplex subacuta

An urticarial papule accompanied by intense itching occurs on the extensor surface of the extremities or the trunk. When it is rubbed and scratched, erosion or crust forms. Subacute prurigo is intractable and may become chronic.

The etiology is unknown. A primary disease such as atopic dermatitis, diabetes, liver dysfunction, lymphoma, leukemia, Hodgkin's disease, internal malignancy, polycythemia, gout, uremia or pregnancy is often involved. Mental stress has also been pointed out as associated with onset. The clinical features are intermediate between those of acute and chronic urticarias. However, acute and chronic urticarias may be found simultaneously in the same patient.

In addition to treatments for the primary disease, topical steroids and antihistamines are administered as needed.

3. Chronic prurigo ★

Classification

Chronic prurigo is subdivided into prurigo chronica multiformis, with aggregated individual papules that tend to form a lichenoid lesion; and prurigo nodularis, with large nodular papules that form sparsely and individually.

Clinical features

Prurigo chronica multiformis occurs most frequently in the trunk and legs of the elderly (**Fig. 8.8**). Exudative or solid papules aggregate to form invasive plaques. The lesions are rubbed as a result of intense itching, and exudate and crusts form to present intermingled pruritic papules and lichenoid lesions. The condition is often chronic, with recurrences and remissions.

Prurigo nodularis most commonly affects adolescents and older women (**Fig. 8.6**). Papules and nodules occur in the extremities, accompanied by intense itching. When rubbed they develop erosion and bloody crusts, resulting in dark brown solid papules or nodules. These are isolated and do not coalesce to form plaques. They persist for several years.

Treatment

Topical steroids or ODT is applied as a local therapy. Application of a zinc ointment sheet over topical steroids is effective. Oral antihistamines are helpful in relieving itching. Oral steroids and cyclosporines may be applied for a short period of time in severe cases. Local injection of steroids and phototherapy are also conducted.

4. Prurigo gestationis

Prurigo gestationis appears on the extremities or trunk of women in their 3rd or 4th month of pregnancy and subsides after delivery. It is increasingly likely to occur with each successive pregnancy. Differentiation between prurigo gestationis and PUPPP (pruritic urticarial papules and plaques of pregnancy) is controversial; however, the former occurs in the early stages of pregnancy, whereas the latter occurs in the later stages of pregnancy.

5. Prurigo pigmentosa (Nagashima) ★

Prurigo pigmentosa (Nagashima) is urticarial erythema accompanied by intense itching. Pruritic erythematous papules recur and heal with reticular pigmentation (**Figs. 8.9-1** and **8.9-2**). It most frequently occurs on the back, neck and upper chest of adolescent women. The pathogenesis is unknown. Minocycline and DDS (dapson) are extremely effective treatments.

Clinical images are available in hardcopy only.

b

Clinical images are available in hardcopy only.

c

Fig. 8.9-2 Prurigo pigmentosa.

b: Prurigo pigmentosa in a female patient in her 20s. Fresh-red erythema are mixed with old lesions, which are seen as reticular hyperpigmented macules. c: Erythematous macules (arrows) are seen at the center of reticular hyperpigmentation. It is a recurrence of prurigo pigmentosa.

Pruritus cutaneus ★

Outline

- In pruritus cutaneus there is no obvious eruption; only itching is present.
- It is often accompanied by dry skin (xerosis).
- Eruptions, lichenification and pigmentation may be

Table 8.1 Causes of pruritus cutaneous.

Diffuse pruritus cutaneous	
Visceral disorder	
Endocrinological dysfunction	Diabetes mellitus, diabetes insipidus, thyroid disorder, parathyroid disorder
Metabolic dysfunction	Hepatitis, cirrhosis, carcinoid syndrome, biliary atresia, gout, etc.
Renal disorder	Chronic renal failure, uremia
Hematological disorder	Erythrocythemia, iron deficiency anemia
Malignancy	Various carcinomas, multiple myelomas, malignant lymphoma (in particular, Hodgkin's disease and mycosis fungoides), chronic leukemia
Parasitosis	Ascariasis, ancylostomiasis
Neurological disorder	Myelophthisis, thalamic tumor
Environmental factor	Mechanical stimuli, dry conditions, spicy foods
Drug	Cocaine, morphine, bleomycin, and drugs to which the patient has hypersensitivity
Food	Seafood (mackerel, tuna, squid, shrimp, clams, etc.), vegetables (aroids, bamboo shoots, eggplant, etc.), pork, wine, beer, chocolate
pregnancy	In the third trimester
psychogenic factor	Excessive stress, compulsive neurosis and other psychogenic disease
skin dryness	senile xerosis
Localized pruritus cutaneous	
Pruritus on the Genital region	Prostatic hypertrophy, urethral stricture, vaginal trichomoniasis, etc.
Pruritus on the perianal region	Constipation, diarrhea, anal prolapse, hemorrhoid, etc.

(Adapted from; Miyachi Y. Minimum dermatology. Bunkodo; 2000).

produced secondarily by rubbing and scratching.

- Oral antihistamines and psychological counseling are helpful.

Clinical features, Classification

The disease is classified by distribution into pruritus universalis and pruritus localis.

Pathogenesis

Pruritus cutaneous occurs secondarily to various underlying diseases, including liver dysfunction and renal failure (**Table 8.1**). Scarring, thickening of the skin, lichenification and pigmentation often develop secondarily by rubbing and scratching. The disease is accompanied by dry skin (xerosis). It tends to occur when the skin is sensitive to external stimulation, especially in winter and at bedtime.

Differential diagnosis

Systemic examinations such as blood test and renal function test are necessary for diagnosis. When the genitalia are affected, pruritus cutaneous should be differentiated from scabies and candidiasis.

Treatment

Treatment focuses on the underlying disease, if detected. Application of antihistamines and moisturizer, and UV irradiation are conducted as symptomatic therapies. It is also important to eliminate pruritus-inducing factors such as alcohol, coffee and spices. Bathing to keep the body clean, wearing cotton clothes, avoiding dryness, and eliminating emotional stress are also helpful. Topical steroid application is effective against secondary eruptions; however, it is ineffective against pruritus itself.

1. Pruritus universalis ★

Itching is present on the whole body surface. As shown in **Table 8.1**, it usually accompanies other diseases. In the elderly, pruritus may be present without a disease because of dry skin and age-related processes; this is called senile pruritus.

2. Pruritus locaris ★

Itching appears locally in the anal region or genitalia. Pruritus locaris in the anal region, which accounts for most cases of pruritus, frequently affects young and middle-aged men. It may be caused by constipation, diarrhea, hemorrhoids and anal prolapse. Pruritus localis of the genitalia is commonly found in middle-aged women. The labia majora and minora are most commonly affected. Pruritus localis needs to be differentiated from parasitic infection.

