Case 1

What is this Transient Rash?

A 42-year-old woman presents for an evaluation of an acute pruritic eruption that began two days earlier on her face, trunk, and extremities. The lesions resolve and recur at different sites from one day to the next. The outbreak began after the patient ate Chinese food the night before; she also had a recent sinus infection. She takes vitamins and hormone replacement therapy.

What is the likely cause of this eruption?

a. Urticaria
b. Adverse drug reaction
c. Psoriasis
d. Pityriasis rosea
e. Granuloma annulare

Answer

Pruritic wheals that arise in one location, resolve, and then erupt elsewhere within 48 hours are a classic presentation of urticaria, (Answer a). Both sinusitis and spicy foods have been implicated as causes. Over-the-counter products such as vitamins are less commonly associated with urticaria. Hormone replacement therapy is an unlikely culprit.

Psoriasis and pityriasis rosea can flare after an upper respiratory tract infection; however, these conditions feature scaling. Granuloma annulare is fixed and asymptomatic.
Can You Solve this Eruption?

For nine days, a 48-year-old woman has had a pruritic eruption on the right side of the trunk. Her condition was initially diagnosed as contact dermatitis, and prednisone, 20 mg/day, was prescribed. She has taken the medication for the past three days, but it has had no effect on the rash. She is otherwise healthy and had recently been working in her yard.

What does this look like to you?

a. Herpes zoster
b. Herpes simplex

c. Poison ivy dermatitis
d. Unilateral pityriasis rosea
e. Folliculitis

Answer

The patient has poison ivy dermatitis, (Answer c). The “dermatomal” pattern is the area that had come into contact with the plant. The prednisone dosage was too low to be effective. (A typical dosage in this setting is 1 mg/kg tapered over the course of eight to 10 days.)

Herpes zoster can be pruritic in this patient’s age group but, as with herpes simplex, one would expect to see grouped vesicles. Pityriasis rosea usually has more scale. Folliculitis more closely resembles acne.
What’s Behind this Rash?

A pruritic eruption on his waistline of three weeks’ duration sent a 67-year-old man to his physician. Methylprednisolone was prescribed, but it relieved the symptoms only temporarily. He had recently completed a course of trimethoprim-sulfamethoxazole for a urinary tract infection, which resolved; the rash was not affected by the course of therapy.

Which of the following do you suspect?

a. Contact dermatitis  
b. Tinea corporis  
c. Candidiasis  
d. Intertrigo  
e. Erythrasma

Answer

The results of a potassium hydroxide (KOH) evaluation confirmed the diagnosis of *tinea corporis*, (Answer b). The condition responded to antifungal therapy.

Typically, the failure of a rash to resolve following an adequate course of prednisone rules out contact dermatitis. However, this entity would have been considered if the patient’s KOH evaluation had been negative. During the acute phase—six weeks or less—contact dermatitis could be considered even if it failed to respond to corticosteroid therapy. However, it would be unusual for contact dermatitis not to respond unless contact with the culprit agent persisted.

Candidal infection and intertrigo would not appear on the waistline but in the intertriginous folds. Erythrasma is a diagnosis of exclusion that is confirmed if the patient responds to antibacterial therapy.
A 13-year-old boy presents for evaluation and treatment of what he believes to be acne. The condition has been present for several months and has flared recently.

What does this look like to you?

a. Acne  
b. Bacterial folliculitis, such as from *Staphylococcus*  
c. Yeast folliculitis, such as from *Pityrosporum*  
d. Darier-White disease  
e. Acanthosis nigricans

**Answer**

The boy has *Darier-White disease* (keratosis follicularis), *(Answer d)*, an autosomal dominant disorder characterized by rough, scaling papules on the face, trunk, and flexural surfaces. Biopsy is generally indicated to make the diagnosis. Onset usually occurs in childhood with slow, steady progression over a lifetime. The condition is treated with oral or topical retinoids.

Because the lesions are not follicular, acne and folliculitis can be ruled out. Acanthosis nigricans is typically more diffuse and is confined initially to flexural surfaces. The texture is usually not rough and there is generally no scale.
A fit, athletic 17-year-old complained of an irritating, tender growth on his anterior right foot. It was causing pressure discomfort; he was told he couldn’t swim.

What is the growth?

a. Callus
b. Scar
c. Plantar mosaic warts
d. Verrucous carcinoma
e. Fungus maceration

Answer

Thick keratotic plaques of closely grouped coalescent verrucae are termed mosaic warts, (Answer c). They often alarm the patient and cause mechanical discomfort. This young man was totally healthy and not immunosuppressed. As with nearly all warts, these will eventually spontaneously disappear.

Treatment is aimed at keeping his foot comfortable so that he can continue his active lifestyle. Keratolytic agents, such as 40% salicylic acid plaster, combined with paring, is often helpful. More aggressive therapy does not speed up recovery.

He may swim and continue with other activities because the wart virus is extraordinarily ubiquitous. Only those who are immunologically susceptible grow warts.
**Case 6**

“Is it the chemo?”

A 51-year-old woman has had a progressive rash on the trunk, proximal arms, and legs for two weeks, following the latest round of chemotherapy for breast cancer. Around the time that the rash erupted, she was also taking levofloxacin for a productive cough. Cutaneous lupus erythematosus was diagnosed years ago, but she has been disease-free for the past five years. Chemotherapy is being withheld pending diagnosis of the rash.

What do you suspect?
- A. Adverse reaction to chemotherapy
- B. Adverse reaction to levofloxacin
- C. Subacute cutaneous lupus erythematosus
- D. Psoriasis
- E. Metastatic breast cancer

**Answer**

A biopsy confirmed the clinical impression of *subacute cutaneous lupus erythematosus* (Answer C). The appearance of the rash—semi-annular scaling macules—is characteristic. Any sun-exposed surface can be affected. The rash cleared with dapsone, and the patient was able to continue her chemotherapy.

Adverse reactions can occur with either chemotherapy or levofloxacin, so a biopsy is helpful. Psoriasis is also a possibility, because of the stress of the situation.

However, the rash of psoriasis is usually not annular, or semi-annular, or confined to sun-exposed surfaces. It is highly unlikely that metastatic breast cancer would manifest in this form.

David L. Kaplan, MD, is the original author. Printed with permission from Consultant and Cliggot Publishing Co.
Case 7

“This rash won’t go away!”

For nine months, a 39-year-old woman has had a pruritic rash on the posterior portion of one thigh. She had consulted another physician, who prescribed a medication that she does not recall, but there was no improvement.

What is your clinical impression?

a. Impetigo
b. Contact dermatitis
c. Granuloma annulare
d. Psoriasis
e. Tinea corporis

Answer

A potassium hydroxide evaluation confirmed the diagnosis of tinea corporis, (Answer e). The pruritic annular scaling macules are characteristic. Impetigo is usually limited to one location for a few weeks before it spreads. Contact dermatitis does not have discrete borders and is rarely unilateral. Granuloma is not as crusty as tinea corporis and is usually asymptomatic. Moreover, because granuloma typically occurs over joints, the hands and feet are common sites. Psoriasis is not usually unilateral and does not typically show central clearing.

David L. Kaplan, MD, is the original author. Printed with permission from Consultant and Cliggot Publishing Co.
Case 8

The Mysterious Eruption

A 15-year-old boy has had asymptomatic purplish brown eruption on the lower abdomen for the past year. He participates in several sports but does not relate the rash to any of these activities. He takes no medications and has had a dog for six years.

What are we looking at here?

a. Dermatophyte infection
b. Wart
c. Insect bite reaction
d. Lichen planus
e. Psoriasis
f. Pityriasis rosea

Answer

A biopsy confirmed the diagnosis of lichen planus, (Answer d). This condition is uncommon in children, in whom it generally presents in the atypical fashion seen here, and therefore a biopsy is generally required to confirm the diagnosis. In adults, lichen planus usually features polygonal pruritic purple papules with a lacy pattern of whitish lines (Wickham’s striae). This patient had only a few sparse lesions.

Dermatophyte infections, psoriasis, and pityriasis have more scale than lichen planus. Warts have a more verrucous appearance and generally are not purplish. Insect bites are usually pruritic.

David L. Kaplan, MD, is the original author. Printed with permission from Consultant and Cliggot Publishing Co.
A 22-year-old woman who was working in the Peace Corps in western Africa was bitten on the thigh by an unknown insect. The lesion consisted of an eroded indurated plaque with pustular material in the centre. The area became more erythematous, swollen, and painful and a local health-care provider prescribed cephalexin. The woman returned to the United States and now presents on day three of treatment. She reports that the lesion is looking better, but she wants to verify that the treatment is appropriate. She is otherwise healthy and takes no medication.

What are you looking at here?

a. Dracunculosis
b. Filariasis
c. Loaiasis
d. Onchocerciasis
e. Staphylococcus aureus infection

Answer

The history of erythema, swelling, pain, and pus suggested a staphylococcal infection; a culture was positive for Staphylococcus aureus, (Answer e). The patient continued the cephalexin and had an uneventful recovery.

Dracunculosis (Guinea worm disease) is endemic to tropical Africa; humans become infected by drinking water contaminated by water fleas that carry the disease. The larvae penetrate the intestinal wall and mature into adult worms, which eventually work their way to the surface. Filariasis is caused by nematodes of Wuchereria bancrofti, Brugia malaya, or Brugia timori, which are spread by mosquitoes and cause lymphedema. Loaiasis is a form of filariasis seen in western Africa; it causes painful subcutaneous swellings that develop slowly. Onchocerciasis (river blindness), an infection with the filarial nematode Onchocerca volvulus, can cause firm subcutaneous nodules; a chronic pruritic, papular rash, and eye lesions that may result in blindness.