Illustrated quizzes on problems seen in everyday practice



## Case 1

A 54-year-old man presented with a two-month history of a non-healing, crusted plaque on his right forearm. The plaque appeared after the man had been scratched by the pines of a Christmas tree.

#### **Questions**

- 1. What is the diagnosis?
- 2. What organism causes the disease?
- 3. How is the diagnosis confirmed?

#### **Answers**

- 1. Fixed cutaneous sporotrichosis, which is synonymous with "rose-handler's disease" and "Christmas tree disease".
- 2. The disease is caused by traumatic implantation of the thermally dimorphic fungus *Sporothrix schenckii*. This fungus lives on decomposing plants, and can be found on wood splinters, rose bushes, Christmas (pine) trees, hay bales, and even in the saliva of some cats and dogs.
- 3. The diagnosis is confirmed by culture from a skin biopsy. Organisms are rarely observed in tissue-fixed specimens.

Provided by Dr. Scott R.A. Walsh, Toronto, Ontario.

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A 56-year-old woman presented with an erythematous, pruritic eruption, which appeared only in areas beneath her bathing suit. She had been vacationing in Mexico, and went swimming in the ocean. The rash began approximately three days into her week-long vacation.

#### Questions

- 1. What is the diagnosis?
- 2. What causes the condition?
- 3. How does this condition differ from "swimmer's itch"?

#### **Answers**

- 1. Seabather's eruption, which is synonymous with marine dermatitis, or "sea lice".
- 2. The eruption is caused by stings from jellyfish larvae which become trapped beneath the bathing suit
- 3. Seabather's eruption occurs on covered areas, where marine coelenterates become trapped or adhere to the body. These organisms live in salt water and are common in the Caribbean.

  Swimmer's itch, or cercarial dermatitis, occurs on uncovered parts of the body, and is caused by penetration of the skin by avian or other non-human schistosomes. These organisms are common in both salt water and freshwater, and are found in the Northern U.S. and in Canada.

Provided by Dr. Scott R.A. Walsh, Toronto, Ontario.



A 62-year-old woman presented with a three-year history of hyperpigmented, velvety plaques on the axillae, sides of neck, mid-chest, back, groin, and both antecubital and popliteal fossae.

#### Questions

- 1. What is the diagnosis?
- 2. What may this be associated with?

#### **Answers**

- 1. Acanthosis nigricans.
- 2. This condition is likely due to stimulation of insulin-like growth factor (IGF) receptors on keratinocytes, causing subsequent cell proliferation. This proliferation can occur either by production of excess endogenous IGF, or from increased cross-binding of insulin to this receptor in hyperinsulinemic states. Some systemic associations that manifest with either increased IGF or insulin include insulin resistance, endocrinopathy, obesity, and malignancy.

Provided by Dr. Scott R.A. Walsh, Toronto, Ontario.

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A 43-year-old man presented with a one-month history of hyperpigmented, purplish, indurated plaques with carpet-tacked, whitish scales bilaterally over the cheeks and nasal side walls.

## Questions

- 1. What is the diagnosis?
- 2. What percentage of patients with this disease develop system complications?

#### **Answers**

- 1. Discoid lupus erythematosus (DLE).
- 2. Approximately 5% to 10% of patients with DLE develop systemic lupus erythematosus (SLE). However, 30% of patients with SLE develop discoid lesions at some point in their lives.

Provided by Dr. Scott R.A. Walsh, Toronto, Ontario.



## Case 5

A 27-year-old man was treated with intravenous clindamycin for an oral infection. After two days of therapy, he developed a generalized erythema with numerous non-follicular 1-mm pustules. He also had a fever of 38.9 C.

#### Questions

- 1. What is the diagnosis?
- 2. What is the natural history for resolution of this rash?

## **Answers**

- 1. Acute generalized exanthematous pustulosis (AGEP).
- 2. This drug rash (less commonly due to other causes) resolves spontaneously and rapidly, with fever and pustules lasting seven to 10 days, followed by desquamation over a few days.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.



A 77-year-old woman presented with bilateral erythema at the corners of her mouth, and complaints of mild irritation. She is otherwise healthy, except for a history of osteoporosis.

## Questions

- 1. What is your diagnosis?
- 2. Who is at risk for this condition?
- 3. For what infectious etiology should you consider treatment?

#### **Answers**

- 1. Angular cheilitis.
- 2. Individuals who wear dentures, or who have a history of osteoporosis (as the condition affects the mandible as well).
- 3. Candida.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.



A four-year-old boy was noted to have scaling of the skin. The scaling was most pronounced during the winter months.

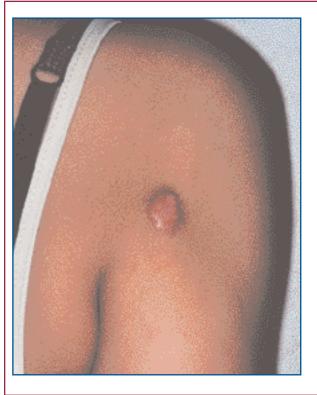
#### Questions

- 1. What is the diagnosis?
- 2. What is the significance?

#### **Answers**

- 1. Ichthyosis vulgaris.
- 2. The presentation can range from very mild, dry scaling, to prominent, large, plate-like scales. This disorder is inherited as an autosomal dominant trait, and is the most common disorder of keratinization. In contrast to other types of ichthyosis, the hyperkeratosis seen in ichthyosis vulgaris is associated with a decreased or absent granular layer.

Provided by Dr. Alexander K.C. Leung and Dr. C. Pion Kao, Calgary, Alberta.



## Case 8

A 13-year-old girl presented with a mass on the right shoulder. She had chicken pox six months prior to presentation.

#### **Questions**

- 1. What is the diagnosis?
- 2. What is the significance?

#### **Answers**

- 1. Keloid.
- 2. A keloid represents an excessive response to injury. The condition is more common in dark-skinned individuals. The lesion tends to be smooth and round, and extends beyond the original wound. A hypertrophic scar, in contrast, tends to stay within the margins of the original wound.

Provided by Dr. Alexander K.C. Leung and Dr. Justine H.S. Fong, Calgary, Alberta.



This 45-year-old woman presented with an itchy lesion on the nipple and areolar area. This lesion has been present for the last five months.

## **Questions**

- 1. What is the diagnosis?
- 2. What is the treatment?

#### **Answers**

- 1. Neurodermatitis (*Lichen simplex chronicus*).
- 2. The treatment for this is a mid- to high-potency topical steroid. If this doesn't work, an intralesional steroid injection may be necessary to stop the patient from scratching.

Provided by Dr. Rob Miller, Halifax, Nova Scotia.



This 25-year-old man presented with an acute eruption of very pruritic vesicles, localized to the palmar aspects of both hands and the interdigital spaces.

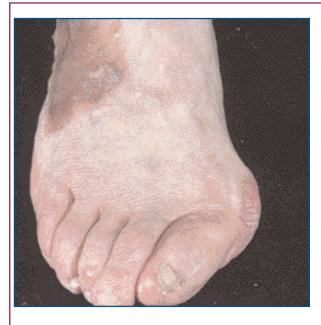
## Questions

- 1. What is the diagnosis?
- 2. What is the treatment?

#### **Answers**

- 1. Dyshidrotic eczema.
- 2. This condition is characterized by the acute onset of pruritic vesicles, classically along the sides of the fingers. It usually lasts three to six weeks, although some cases may be chronic. The etiology is not well established. Treatment consists of cool, wet compresses, and mild- to mid-potency steroids. Occasional cases may require a short course of prednisone therapy.

Provided by Dr. Rob Miller, Halifax, Nova Scotia.



## Case 11

This 75-year-old woman has an itchy, dark patch on her lower leg. The patch has been present for five years.

#### Question

- 1. What is the diagnosis?
- 2. What is the treatment?

#### **Answer**

- 1. Stasis eczema.
- 2. If there is pruritus, a topical steroid, such as hydrocortisone, 1%, should be applied two or three times daily. Compression stockings are also important to minimize stasis edema and to prevent future leg ulceration from occurring.

Provided by Dr. Rob Miller, Halifax, Nova Scotia.



On inspection, the right side of the scrotum of this 14-month-old child was noted to be smaller than the left side.

#### **Questions**

- 1. What is the most likely diagnosis?
- 2. What is the significance?

#### **Answers**

- 1. Right cryptorchidism (undescended testis).
- 2. An undescended testis has to be differentiated from a retractile testis. A retractile testis is usually located above the scrotum, and is the result of a hyperactive cremasteric reflex. Unlike an undescended testis, a retractile testis can be lowered to the bottom of the scrotum. Also, with a retractile testis, the ipsilateral hemiscrotum is fully developed. In contrast, with an undescended testis, the hemiscrotum may be underdeveloped. An undescended testis needs to be treated with orchiopexy before the age of one.

Provided by Dr. Alexander K.C. Leung and Dr. Andrew L. Wong, Calgary, Alberta.