Illustrated quizzes on problems seen in everyday practice



Case 1

A 62-year-old man with insulin-dependant diabetes presents with a three-week history of right ear pain. The pain has become severe and keeps him up most of the night. Recently, he awoke with facial weakness and thought he had suffered a stroke. The ear exam reveals a red polyp. The neurologic exam only reveals VII nerve palsy.

Questions

- 1. What is the diagnosis?
- 2. What is the cause?
- 3. How is it best treated?

Answers

- 1. He has invasive external otitis.
- 2. It is a pseudomonas ear infection in people with diabetes. The bacteria invade and cause osteomyelitis and VII nerve palsy.
- Anti-pseudomonal antibiotics, such as ceftazidime or ciprofloxacin, are usually curative. Debridement of the ear canal is also performed.

Provided by Dr. Irving Salit, Toronto, Ontario.

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E-mail: diagnosis@sta.ca

Fax: (514) 695-8554



A 12-year-old boy presents with velvety, brown thickening of the back of his neck. He is unable to scrub away the "dirty neck."

Questions

- 1. What is your diagnosis?
- 2. With what malignancy is this most commonly associated?

Answers

- 1. Acanthosis nigricans is diagnosed.
- 2. Adenocarcinoma of the gastrointestinal tract (usually gastric).

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.



Case 3

A 30-year-old man presents with pruritus, lichenification and a weeping exudate on his lower leg and ankle. He recently had an injury to his ankle and has been applying cold packs and topical diclofenac. He has also been taking oral acetaminophen for the discomfort. An earlier course of oral antibiotics did not clear this rash.

Questions

- 1. What is your diagnosis?
- 2. How would you manage this patient?

Answers

- 1. The diagnosis is confirmed as allergic contact dermatitis to topical diclofenac.
- Treatment includes potent topical steroids for 10 to 14 days and discontinuation of topical diclofenac.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.



A 44-year-old man presents with a petechial and hyperpigmented rash on the dorsum of both feet and lower legs. The rash has been present for six months. There is no evidence of pigmentation or petechiae elsewhere.

Questions

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

Answers

- 1. The diagnosis is Schamberg's disease (chronic pigmented purpura). This represents a lymphocytic vasculitis. It consists of irregular patches or orange-brown pepper spots speckled with cayenne. It is of unknown etiology and has no systemic component. It typically affects only the lower legs.
- 2. There is no therapy.

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

Cont'd on page 52



A 30-year-old man presents with thick, red, scaly plaques on the soles of both feet, as well as on both palms.

Questions

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

Answers

- 1. The diagnosis is palmoplantar psoriasis.
- 2. As it is such an extensive disease, palmoplantar psoriasis can be difficult to control with topical measures. Initial therapy with fluorinated topical steroids is appropriate. Topical psoralen ultraviolet A-range light may help in some cases. With some extensive hand and foot diseases, systemic agents, such as methotrexate and acitretin, may be indicated. The newer biologic agents may also eventually find a role in the treatment of this form of psoriasis.

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



Case 6

A 57-year-old obese woman presents with a painful right-heel, aggravated by weight-bearing. Only some local tenderness over the plantar aspects of her right heel is found. An X-ray is performed on her foot.

Questions

- 1. What does the X-ray show?
- 2. What is the treatment?

Answers

- 1. The X-ray shows heel spur.
- Treatments include heel pad, local anesthesia and steroid injection and ultrasound therapy. In some cases, the condition heals spontaneously, but it may take months.

Provided by Dr. Jerzy Pawlak; and T.J. Kroczak, Winnipeg, Manitoba.



A nine-year-old girl presents with redness and purulent discharge from both eyes. There is no preauricular node enlargement.

Questions

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

Answers

- 1. Bacterial conjunctivitis is diagnosed.
- 2. In severe cases, or in those involving a neonate, gram stain and culture can be prepared. In cases of gonococcal conjunctivitis, the patient should be admitted to hospital and treated with an intravenous antibiotic and topical application of bacitracin every half hour. In children under five, infection may be caused by Hemophilus influenza; Polytrim[®] therapy can be used. For other patients, a broad spectrum of local antibiotics can be prescribed.

Provided by Dr. Jerzy Pawlak, Winnipeg, Manitoba.



Case 8

A 55-year-old man presents with fingernail problems.

Questions

- 1. The most likely cause of this problem is:
 - a) Psoriasis
 - b) Lichen planus
 - c) Eczema
 - d) Onychomycosis
- 2. What is the treatment?

Answers

- 1. Answer d.
- 2. Prior to initiating treatment, appropriate nail specimens should be obtained for fungal culture. In this case, culture shows trichopyton rubrum and the patient is treated with oral terbinafine.

Provided by Dr. Jerzy Pawlak, Winnipeg, Manitoba.



A 12-year-old girl presents with fever, right lower abdominal pain and tenderness at the McBurney's point. Laparotomy shows an inflamed appendix. In addition, a cystic mass is noticed arising from the fallopian tube.

Questions

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

Answers

- 1. This patient has an inclusion cyst of the fallopian tube.
- 2. An inclusion cyst is caused by invagination of the serosa of the fallopian tube. It is usually an incidental finding, with no clinical importance.

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



Case 10

A 30-year-old man presents with flat-topped, hyperkerotic lesions on his left sole.

Questions

- 1. What is the diagnosis?
- 2. What is the causative organism?
- 3. What is the treatment?

Answers

- 1. This patient is diagnosed with plantar warts (verrucae plantares).
- 2. Plantar warts are caused by human papillomavirus (HPV) type 1. In contrast, commom warts (verrucae vulgares) are usually caused by HPV-2 and HPV-4.
- 3. Liquid nitrogen would be the treatment option.

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



A 12-year-old girl presents with a hairy mass on the left side of her lower neck. The mass is lobulated.

Questions

- 1. What is the diagnosis?
- 2. What is the significance?
- 3. Is there a treatment?

Answers

- 1. This patient is diagnosed with lipoma.
- A lipoma may be complicated by fatty necrosis, calcification and xanthomatous change.
 Liposarcoma usually arrises *de novo* and not in a benign lesion.
- 3. Surgical excision should be considered for cosmetic reasons.

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



Case 12

A 35-year-old woman is concerned about the redness in her left eye. The redness began to appear two hours ago without any apparent reason.

Questions

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

Answers

- 1. Subconjunctival hemorrhage is diagnosed.
- Subconjunctival hemorrhage is often spontaneous.
 It may also result from trauma, such as Valsalva maneuver (violent coughing, vomiting), acute conjuntivitis, blood dyscrasia, septicemia, hypertension or scurvy.
- 3. Most cases resolve spontaneously in 10 to 14 days.

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



A 37-year-old man develops painful, tense blisters on both forearms approximately two hours after hauling fig trees on a sunny afternoon.

Questions

- 1. What is the diagnosis?
- 2. What is the chemical that causes this cutaneous burn reaction with ultraviolet light?
- 3. Which other plants contain similar chemicals?
- 4. What treatment is available?

Answers

- 1. Phototoxic dermatitis is an inflammatory reaction caused by the combination of a photosensitizing agent, followed by exposure to ultraviolet radiation.
- 2. The chemical reactant is 5-methoxypsoralen.
- 3. Other plants that contain photosensitizing psoralens include:
 - hogweed
- lime
- angelica
- lemon
- fennel
- grapefruit
- celery
- orange
- parsley

- rue
- parsnip
- capers
- scurf-pea
- 4. Treatment options include non-steroidal anti-inflammatories, cool compresses and potent topical corticosteroids. D

Provided by Dr. Scott Walsh, Toronto, Ontario.