Illustrated quizzes on problems seen in everyday practice

Case 1: Teena's Tears

Teena, 15, presents with a sudden onset of tearing and itching in her left eye, with swelling of the conjunctiva. She has a history of allergies to:

- dust,
- pollen,
- grass and
- cats.

Questions

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

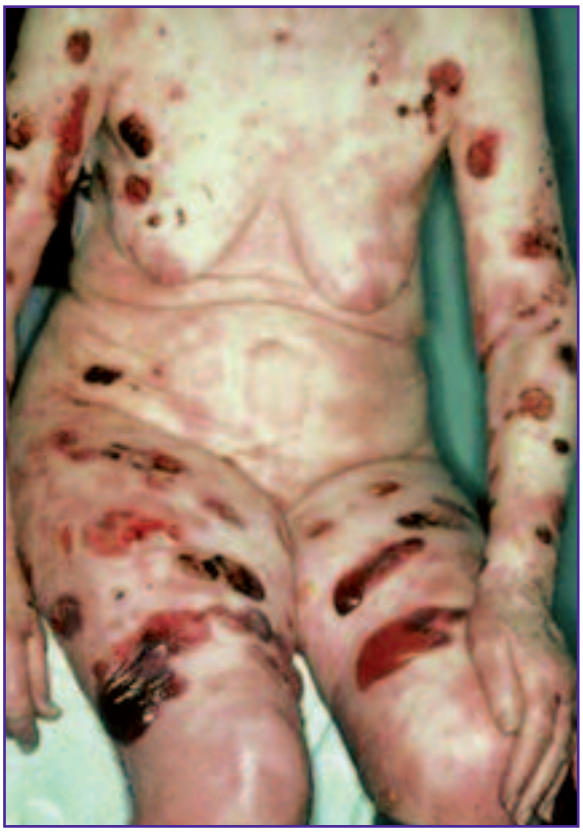
Answers

1. Allergic conjunctivitis.
2. Cold compresses, topical antihistamines and vasoconstrictors can be used. Mast cell stabilizers, in the form of sodium cromoglycate, are also beneficial. If the patient is highly symptomatic, she can be referred to an ophthalmologist.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Case 2: Barbara's Bullae

Barbara, 75, presents with recurrent eruptions of bullae on her trunk and limbs. The eruptions are intensely itchy and have been intermittently present for seven years.



Questions

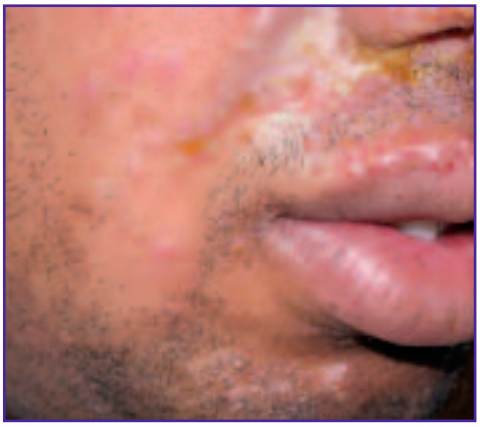
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Bullous pemphigoid.
2. Bullous pemphigoid is an autoimmune blistering disease that predominantly affects the elderly. The disease is characterized by the eruption of bullae on normal or inflamed skin. Sites of predilection include the flexural areas of the extremities, lower trunk and abdomen. Oral mucosal involvement occurs in 10% to 30% of affected individuals. The lesions are intensely pruritic and usually heal without scarring. The course is characterized by exacerbations and remissions. The histology reveals a subepithelial blister with an eosinophilic infiltrate. Direct immunofluorescence shows a linear deposition of IgG and complement$_3$ (C_3) in the epidermal basement membrane.
3. Oral prednisone is the treatment of choice. Tetracycline or erythromycin, either alone or in combination with nicotinamide, is a safe alternative to oral corticosteroids. Dapsone or sulfapyridine is a useful adjunct. Immunosuppressive drugs, such as azathioprine, methotrexate and mycophenolate mofetil should be considered in resistant cases.

Provided by Dr. Alexander K. C. Leung; Dr. Tom Woo; and Dr. Lane M. Robson, Calgary, Alberta.

Case 3: Umberto's Ulcerations



Umberto, a 34-year-old male, with a long history of atopic dermatitis, presents with grouped, punched-out ulcerations on his face and neck, with concomitant fever and malaise.

Questions

1. What is the diagnosis?
2. What is the etiology and what are the complications?
3. How will you manage this condition?

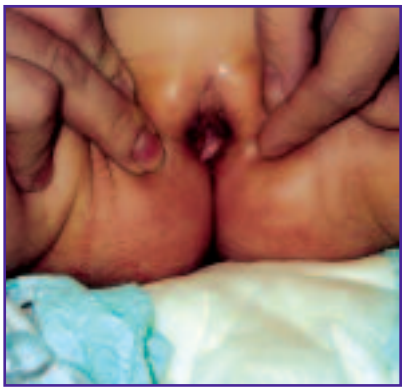
Answers

1. Eczema *herpeticum*.
2. This is most commonly caused by the herpes virus infection in a patient who suffers from atopic dermatitis. It can be complicated by a superimposed bacterial (*Staphylococcus aureus*) infection.
3. It is a medical emergency (especially in a child) and needs to be treated with antivirals, with or without antibiotics. After the subsidence of the acute episode, ongoing management of the atopic dermatitis with moisturizers and topical steroids will help prevent further skin compromise and subsequent risk of a widespread cutaneous herpes infection.

Provided by Dr. Scott Walsh; and Ms. Jennifer Sharma, Toronto, Ontario.

Cont'd on page 60 ⟶

Case 4: Marsha's Mass



Two-month-old Marsha presents with a mass that protrudes from the introitus. The mass was first noted at birth. No bleeding has been observed from the introitus.

Questions

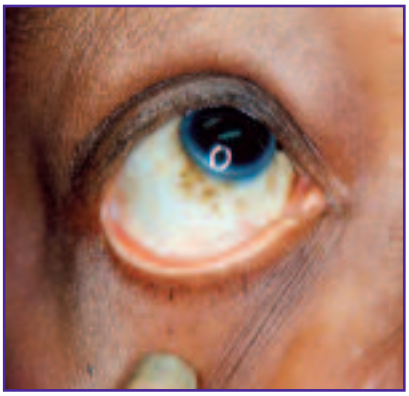
1. What is the diagnosis?
2. What is the significance?

Answers

1. Hymenal tag.
2. Hymenal tags are present in 3% to 13% of normal newborn females. The tags are commonly located in the superior and inferior positions and tend to resolve spontaneously. New hymenal tags might appear postnatally as a result of extension of an intravaginal or external hymenal ridge.

Provided by Dr. Alexander K. C. Leung; and Dr. W. Lane M. Robson, Calgary, Alberta.

Case 5: Paula's Pigmentation



Paula, 62, is noted to have pigmented areas in the lower part of her right eye.

Question

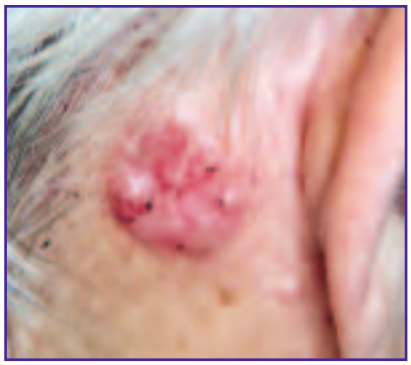
1. What is the diagnosis?

Answer

1. Scleral melanocytosis. It is a congenital melanocytic hyperpigmentation of the sclera, a common characteristic of Asian and African American individuals.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Case 6: Leonard's Lesion



Leonard, 79, presents with a round skin lesion behind his right ear. The lesion has been increasing in size very slowly over the past five years.

Questions

1. What first-line investigation should be performed?
2. What is the diagnosis?
3. What is the treatment?

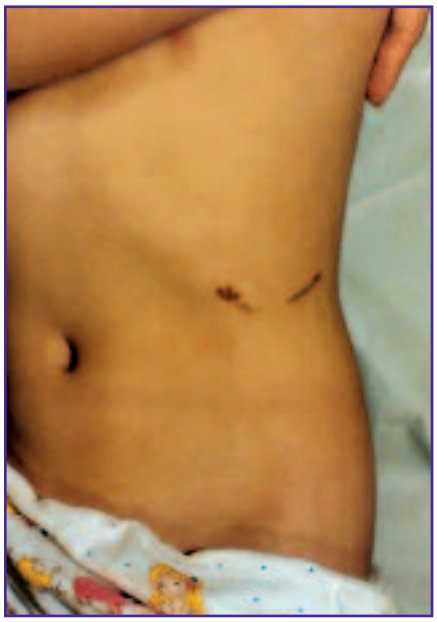
Answers

1. Biopsy is essential for all suspected skin tumours or lesions. In this case, the biopsy showed basal cell carcinoma (BCC).
2. Nodular BCC is slow growing and rarely metastasizes. However, it can cause significant local destruction and disfigurement.
3. The Mohs surgery technique provides the highest cure rate, while at the same time preserves tissue.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Cont'd on page 63 ⟶

Case 7: Patricia's Papules



Patricia, a 16-month-old child, presents with brown papillomatous papules in a linear configuration on her left lower chest. The lesion was first noted at birth.

Questions

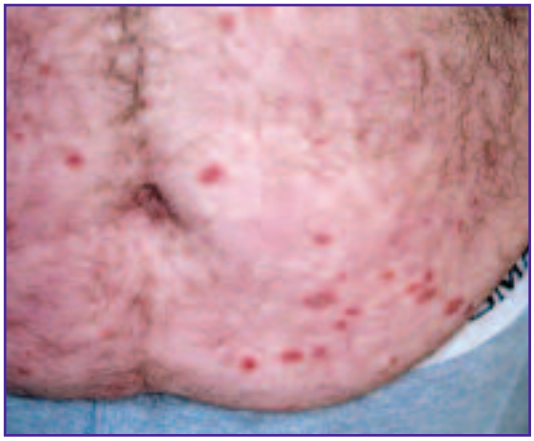
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Epidermal nevus (nevus verrucous).
2. An epidermal nevus is a hamartoma composed of tissue normally found in the epidermis. The lesion commonly presents at birth. This nevus typically presents as well-circumscribed hyperpigmented papillomatous papules or plaques that are arranged in a quasidermatomal distribution. The lesion is usually asymptomatic, but might become verrucous with time. The epidermal nevus syndrome refers to the occurrence of extracutaneous abnormalities in patients with epidermal nevi.
3. The lesion can be removed either by laser ablation or surgery.

Provided by Dr. Alexander K. C. Leung; Dr. W. Lane M. Robson; and Dr. Tom Woo, Calgary, Alberta.

Case 8: Sam's Scales



Sam presents to you with red scaling papules that suddenly appeared on his trunk and abdomen, one week after symptoms of pharyngitis.

Questions

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

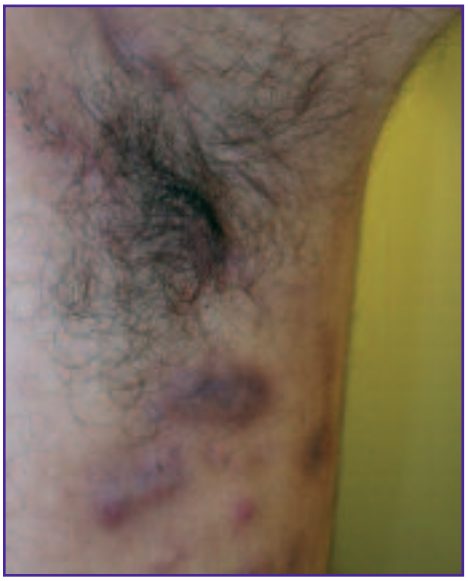
Answers

1. Guttate psoriasis.
2. Over 30% of psoriatic patients have their first episode before age 20; in many instances, an episode of guttate psoriasis is the first indication of the patient's propensity for the disease. Streptococcal pharyngitis or viral upper respiratory infection may precede the eruption by one week or two weeks. Few or many pinpoints which can lead to 1 cm red scaling papules can suddenly appear on the trunk and the extremities, sparing the palms and the soles. Lesions increase in diameter with time. The scalp and the face may also be involved. Pruritus is variable. Guttate psoriasis may resolve spontaneously in weeks or months; it responds more readily to treatment than chronic plaque psoriasis.

   Throat cultures should be taken to rule out streptococcal infection. There is a high incidence of positive antistreptolysin O titre in this group.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Case 9: Boden's Boils



Boden, 27, presents with a chronic history of boils in both axillae and, occasionally, in the groin. They can be foul-smelling and often tender. He has been on multiple courses of antibiotics, but the problem is not resolving.

Questions

1. What is the diagnosis?
2. What are the characteristics of this condition?
3. How do you manage this condition?

Answers

1. *Hidradenitis suppurativa.*
2. There is follicular occlusion, chronic relapsing inflammation, mucopurulent discharge, painful papules or nodules and progressive scarring.
3. General measures include: local hygiene, weight reduction, antiperspirants and antiseptics, along with wearing loose-fitting clothing. Medical management (oral and topical antibiotics, oral retinoids, intralesional triamcinolone) is recommended in the early stages, whereas surgery should be performed as early as possible after the formation of abscesses, fistulas and scars.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 10: Tiny Critter

This parasite was brought to the clinic by one patient.

Question

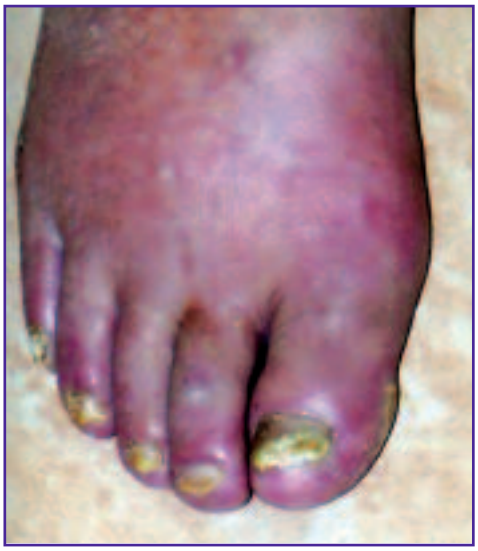
1. What is it?

Answer

1. Head lice.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Case 11: Thomas' Toenail



Thomas, 25, presents with a one-year history of yellowish discolouration of the toenails.

Questions

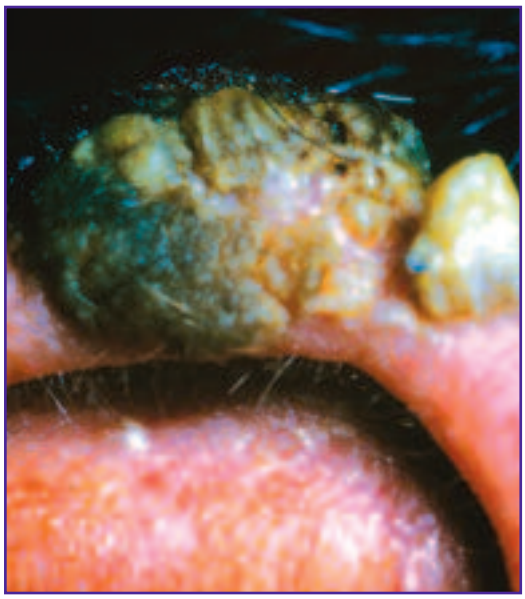
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Tinea unguium (onychomycosis) is a dermatophyte infection of the nail plate.
2. The condition is most commonly caused by *Trichophyton (T.) rubrum*, *T. mentagrophytes*, or *Epidermophyton floccosum*. Tinea pedis is the most common predisposing factor. Other predisposing factors include immunosuppression and a family history of tinea unguium. Cellulitis is a potential complication, especially in patients who are immunocompromised.
3. Treatment consists of oral therapy with itraconazole, fluconazole, ketoconazole, or terbinafine. Good nail care is important. The nails should be kept clean, dry and manicured.

Provided by Dr. Alexander K. C. Leung; Dr. W. Lane M. Robson; and Dr. Tom Woo, Calgary, Alberta.

Case 12: Glen's Growth



Glen is a renal transplant patient who presents with a six-month history of a lesion on his ear. He has had similar lesions elsewhere on his face and hands.

Questions

1. What is the diagnosis?
2. What is the treatment?
3. Why does this patient get these lesions?

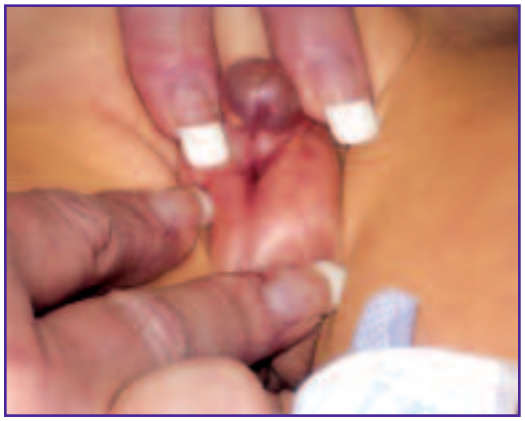
Answers

1. Hyperkeratotic actinic keratosis (squamous cell *Ca-in-situ*).
2. Surgical excision.
3. Immunocompromised individuals, such as kidney transplant patients, are more prone to pre-malignant and malignant tumours.

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

Cont'd on page 70 ⟶

Case 13: Matthew's Meatus



Matthew's mother is concerned because whenever her five-month-old son pees, the urine dribbles from the undersurface of his penis.

Questions

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

Answers

1. Hypospadias. This condition is characterized by a urethral meatus that is ectopically located proximal to the normal location and on the vertical surface of the penis. In severe cases, the urethral meatus opens onto the scrotum or the perineum.
2. Cryptorchidism and inguinal hernia are the most common associated anomalies. Urinary tract anomalies occur in 1% to 5% of cases, with isolated anterior and posterior hypospadias, respectively. Chordee is commonly associated with proximal hypospadias and sexual intercourse might not be possible in severe cases.
3. Surgical repair is usually required for all but mild cases of hypospadias.

Provided by Dr. Alexander K. C. Leung; Dr. Benny C. L. Cheung; and Dr. W. Lane M. Robson, Calgary, Alberta.

Case 14: Farah's Fatigue

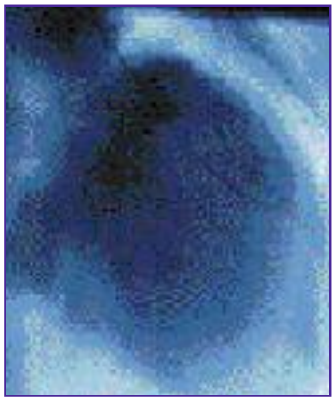


Figure 1. End-systolic.

Figure 2. Left coronary angiography.

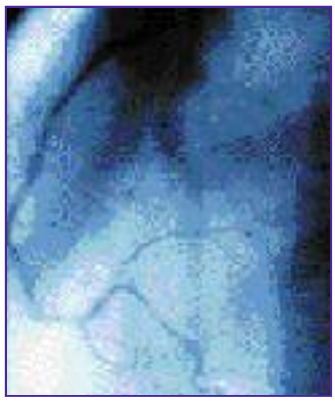


Figure 3. Right coronary arteriography.

Farah, 34, is a cocaine addict who presents to you because of general tiredness. She was also short of breath and had a swollen ankle. A left ventriculogram (Figure 1), left coronary angiography (Figure 2) and a right coronary arteriography (Figure 3) were performed.

Questions

1. What do these exams show?
2. What is the diagnosis?
3. What is the etiology?

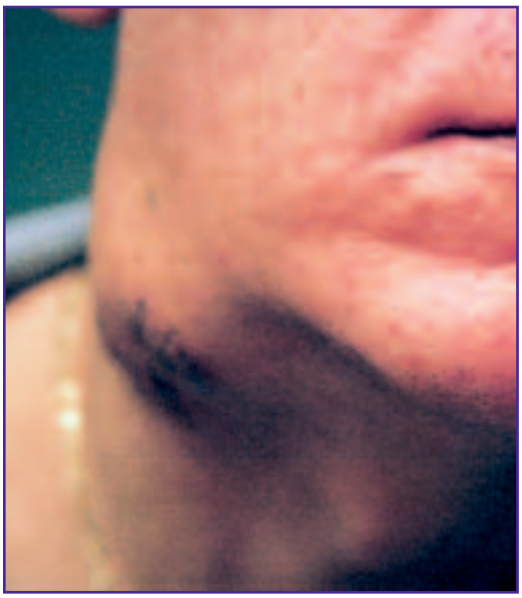
Answers

1. Left ventricular enlargement and increased left ventricular end-systolic volume and normal coronariography.
2. Dilated cardiomyopathy.
3. Unknown.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.

Cont'd on page 74 ⟶

Case 15: Brady's Bulge



Brady, 39, presents with an eight-month history of right anterior neck swelling and no other symptoms. The mass is fairly high and fixed and moves up and down when he swallows. There is no discolouration and the cranial nerve examination is normal.

Questions

1. What is the differential diagnosis?
   a) Metastatic lymph nodes
   b) Branchial cleft cyst
   c) Carotid body aneurysm
   d) Salivary gland tumour
   e) All of the above
2. What investigations would you order?
3. What is your diagnosis?

Answers

1. All of the above (e).
2. Ultrasonography, computed tomography and magnetic resonance imaging are very effective, but carotid angiography is by far the most useful diagnostic test for this case.
3. Carotid body tumour.

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

Case 16: Tim's Tissue

Tim, 50, presents with a triangular fleshy growth on the nasal side of both eyes. The abnormal tissue has been present for a year. His vision is normal.

Questions

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

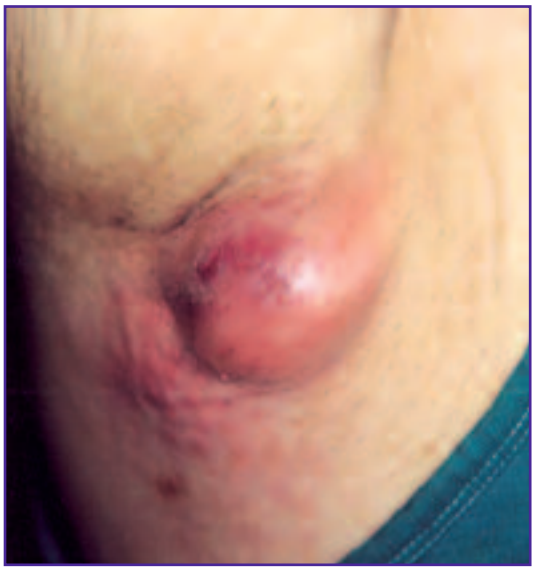
Answers

1. Pterygium.
2. Pterygium results from the degeneration of normal subconjunctival tissue, which subsequently proliferates as a vascular granulation tissue. The word pterygium is derived from the Greek word for "wing." The pathognomonic lesion is a fleshy, raised, triangular thickening of the bulbar conjunctiva that extends onto the cornea. The condition is more prevalent in older individuals, especially those living in areas with sunny and windy climates. In longstanding cases, the pterygium might encroach onto the pupil and impair vision.
3. The patient should be advised to wear sunglasses that provide UV protection and to use artificial tear lubrication to prevent further progression. Surgical removal of the lesion is required if the vision is affected.

Provided by Dr. Alexander K. C. Leung; and Dr. W. Lane M. Robson, Calgary, Alberta.

Case 17: Nadia's Nodule

Nadia, 43, presents with tender erythematous nodules and a cyst affecting her right axilla. She is overweight and has both high BP and cholesterol.



Questions

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

Answers

1. *Hidradenitis suppurativa.*
2. *Hidradenitis suppurativa* is a chronic inflammatory follicular-occlusion disorder affecting areas rich in apocrine glands, such as the axillae and the anogenital regions. Approximately 1% to 2% of the population has the condition and females appear to be more commonly affected. Young adulthood is the likeliest age of presentation and *Hidradenitis suppurativa* is rarely noted before puberty.

   The diagnosis is clinical. The severity of the disease varies significantly from isolated axillary involvement, to involvement that includes the:
   - inguinal region,
   - buttocks,
   - perianal region and
   - the scrotum, or
   - the labia.
3. Medical management is recommended in the early stages, whereas surgery should be performed as early as possible after the formation of abscesses, fistulas, scars and sinus tracts. Wide surgical excision and marsupialization is the treatment of choice in such cases. Unfortunately, recurrence of the disease (up to 25% after wide excision) and new lesions can develop at sites not apparent at the time of surgery.

Provided by Dr. Jerzy K. Pawlak, Winnipeg, Manitoba.