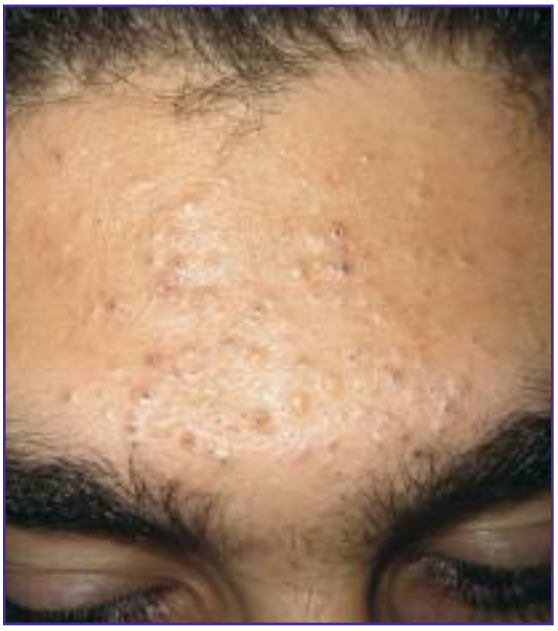
Illustrated quizzes on problems seen in everyday practice

Case 1: Fred's Forehead



Fred, 18, presents with large papules and nodules on his forehead. He has been vigorously scrubbing and exfoliating this area without benefit. There are no lesions elsewhere.

Questions

1. What is the diagnosis?
2. What topical therapy might you try?
3. If topical therapy is insufficient, what would you try next?

Answers

1. Comedonal acne (blackheads and whiteheads).
2. First-line agents to try include topical retinoids, such as tazarotene, tretinoin or adapalene.
3. A course of oral isotretinoin (1 mg/kg), likely for three to four months, followed by topical retinoids for long-term maintenance.

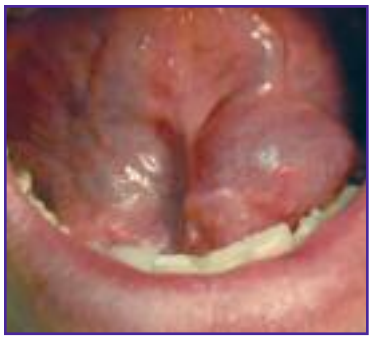
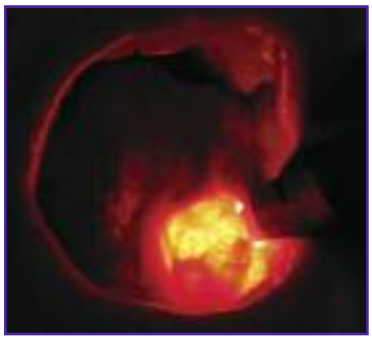
Provided by: Dr. Benjamin Barankin

Share your photos and diagnoses with us!

Do you have a photo diagnosis? Send us your photo and a brief text explaining the presentation of the illness, your diagnosis and treatment and receive $25 per item if it is published.

The Canadian Journal of Diagnosis
955, boul. St. Jean, Suite 306
Pointe-Claire, Quebec H9R 5K3
Email: diagnosis@sta.ca
Fax: (888) 695-8554

Case 2: Marvin's Mass


Marvin, 29, presents with a three-week history of a growing mass in his mouth. It does not elicit any pain but makes it uncomfortable to eat. Marvin is concerned about the possibility of a tumour.

Questions

1. What is the diagnosis?
2. What procedure can you perform to verify the nature of the mass?
3. What is the treatment?

Answers

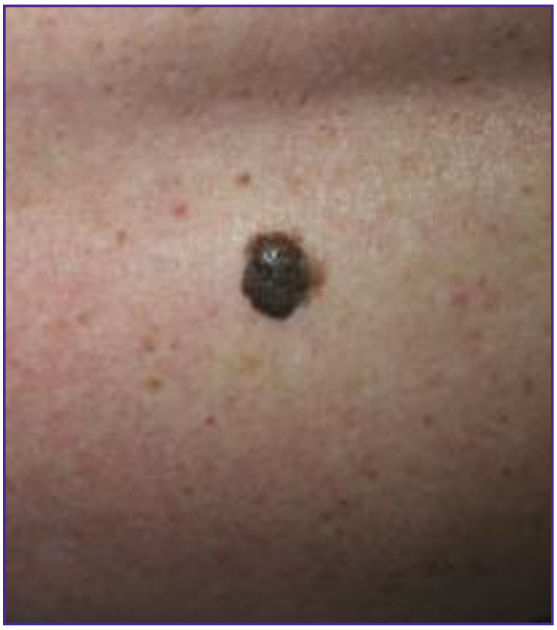
1. Ranula is a mucous retention cyst of the sublingual salivary gland. This lesion typically presents as an asymptomatic soft, fluid-filled mass on the lateral floor of the mouth.

   The word ranula is derived from the Latin word *rana* which means "frog-like;" this type of lesion resembles a frog once it has inflated the skin below its mouth to croak.

   This lesion is an epithelial-lined retention cyst and is formed when the gland duct is obstructed or a local trauma has been sustained. The obstruction of the submandibular or parotid gland does not produce this kind of pseudocysts as the sublingual gland is the only one that secretes continuously in the interdigestive period. The other two do not.
2. Transillumination will verify the cystic nature of this mass.
3. These lesions are managed with marsupialization or complete excision.

Provided by: Dr. Juan Antonio Garcia-Rodriguez

Case 3: Barney's Brown Lesions



Though generally for cosmetic purposes, the treatment of these lesions is not necessarily required.

Barney, an elderly man, presents with these brown lesions on his trunk.

Questions

1. What is the name of these common lesions?
2. Barney has had a large number of these lesions for many years. Does this have any important significance?
3. How would you treat these lesions?

Answers

1. Seborrheic warts or keratosis; basal cell papillomas.
2. No. There is a paraneoplastic form (the sign of Leser-Trélat), but in such cases the lesions are itchy, eruptive and small, rather than the larger, long-standing lesions illustrated here.
3. Though generally for cosmetic purposes, the treatment of seborrheic keratosis is not necessarily required as it is not a pre-malignant condition and is asymptomatic and harmless. Methods of removal include:
   - cryotherapy,
   - electrodesiccation and currettage, or
   - shave excision.

Provided by: Dr. Hayder Kubba

Case 4: Shane's Scrotal Swelling

Shane, six-years-old, presents with an acute onset of scrotal swelling. There is no associated fever or pain. Shane is not on any medication and is otherwise healthy. On examination, the scrotal skin feels soft and thickened. The testes feel normal and nontender. The swelling subsides in two days.

Questions

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

Answers

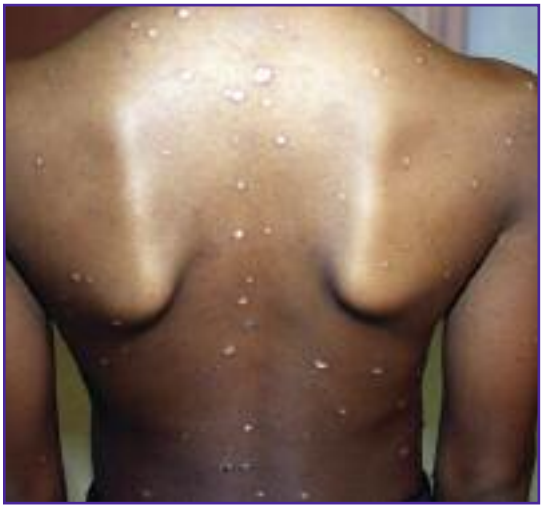
1. Acute idiopathic scrotal edema.
2. Acute idiopathic scrotal edema is characterized by a rapid onset of scrotal edema without tenderness (some authors consider this to be a variant of angioedema).

   Apart from the swelling, the patient is often asymptomatic. A colour Doppler ultrasonography shows echogenic thickening of the skin and muscles of the scrotum with a slightly increased blood flow to the scrotum.
3. Acute idiopathic scrotal edema is self-limiting and resolves on its own. As such, no treatment is necessary.

This is a self-limiting condition and resolves on its own. As such, no treatment is necessary.

Provided by: Dr. Alexander K. C. Leung; and Dr. C. Pion Kao

Case 5: Shawn's Spots



*Scarring as a result of this condition is more common in the African American population and improves over time (*i.e.*, less visible).*

Shawn, seven-years-old, presents with numerous white spots over his body. He recently recovered from the chickenpox.

Questions

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

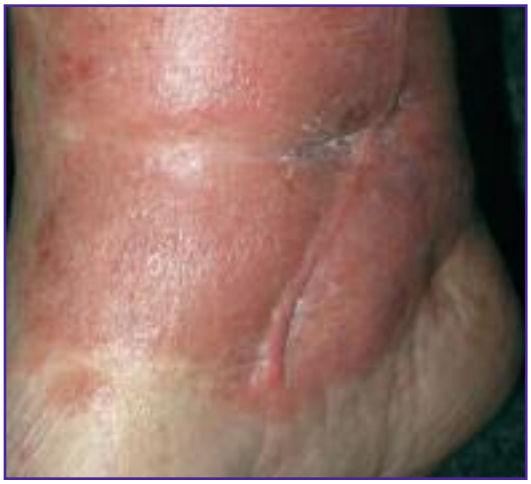
Answers

1. Post-inflammatory scarring of chickenpox. Secondary infection or excoriation extends the process into the dermis producing a crater-like pocmark scar.
2. Chickenpox is an infection caused by the varicella zoster virus. Although symptoms of chickenpox are usually mild in healthy children, complications, like the following, can occur:
   - secondary bacterial infection,
   - pneumonia and
   - encephalitis.
3. Pruritus should be managed with calamine lotion and cool compresses. Scratching should be discouraged to avoid scarring; thus, fingernails should be trimmed.

   Scarring is more visible in the African American population and improves over time (*i.e.*, less visible).

Provided by: Dr. Jerzy Pawlak

Case 6: Wanda's Wound



Wanda, 56, presents with lymphedema and a recently-scraped ankle. She has been applying polymyxin B-gramicidin to her wound. The area has become increasingly erythematous and pruritic. She is afebrile and otherwise well.

Questions

1. What is the diagnosis?
2. How could you confirm the diagnosis?
3. How would you treat Wanda's leg?

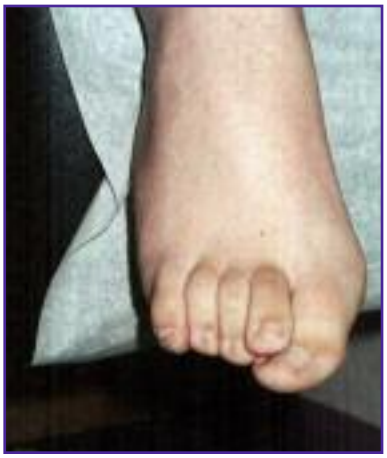
Answers

1. Allergic contact dermatitis to polymyxin B-gramicidin.
2. Patch testing by a dermatologist.
3. A potent topical steroid twice daily for two to three weeks and the avoidance of polymyxin B-gramicidin in the future. If there is any suggestion of systemic illness or fever, consider coverage with topical or oral antibiotics. If there is any suggestion of systemic illness or fever, consider coverage with oral antibiotics, such as cephalexin.

Provided by: Dr. Benjamin Barankin

If there is any suggestion of systemic illness or fever, consider coverage with topical or oral antibiotics.

Case 7: Terry's Toe



Terry, a seven-year-old boy, presents with a deformity of the right second toe.

Questions

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

Answers

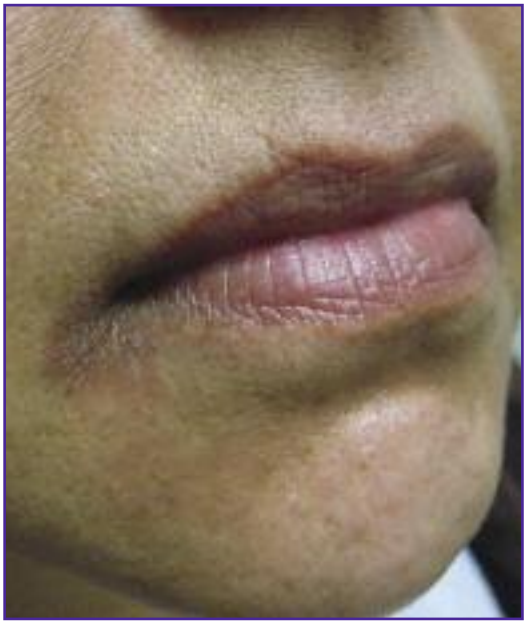
1. Hammer toe.
2. A hammer toe is a congenital deformity characterized by flexion of the proximal interphalangeal joint with or without hyperextension of the metatarsophalangeal joint. The second toe is most commonly involved.

   A hammer toe may be complicated by a callus formation on the dorsum of the affected toe where it comes into contact with the shoe.
3. The majority of cases are asymptomatic and require no treatment. A release of the flexion tendon may be necessary for symptomatic cases.

Provided by: Dr. Alexander K. C. Leung; and Dr. Justine H. S. Fong

This is a congenital deformity characterized by flexion of the proximal interphalangeal joint with or without hyperextension of the metatarsophalangeal joint.

Case 8: Miguela's Mouth



This condition is more common in the elderly and in those wearing dentures.

Miguela, a 48-year-old Hispanic woman, presents with a hyperpigmented and slightly sore area at the corner of her mouth.

Questions

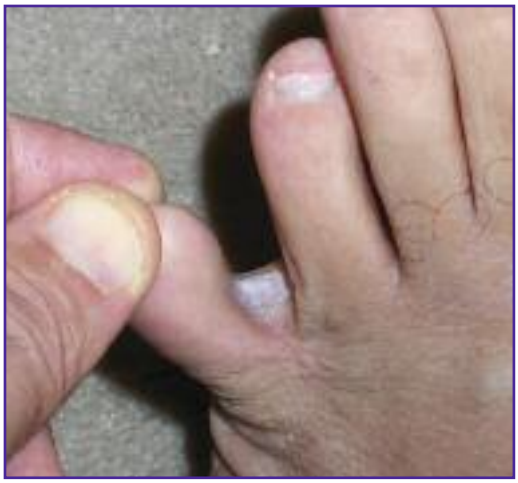
1. What is the diagnosis?
2. In whom is this condition more common?
3. What microorganisms may play a role in this condition?

Answers

1. Angular cheilitis.
2. This condition is more common in the elderly and in those wearing dentures. It is particularly prevalent in persons with an overhanging of the upper lip on the lower lip, which results in a moist deep furrow.
3. *Candida albicans* and/or *Staphylococcus aureus* may be present.

Provided by: Dr. Benjamin Barankin

Case 9: Ralph's Rash



This is a superficial fungal infection caused by species of Trichophyton, Epidermophyton, *or* Microsporum.

Ralph presents with a four-month history of an itchy, white-coloured rash between his toes.

Questions

1. What is the likely diagnosis?
2. What tests should be employed to determine the cause?
3. What is the treatment?

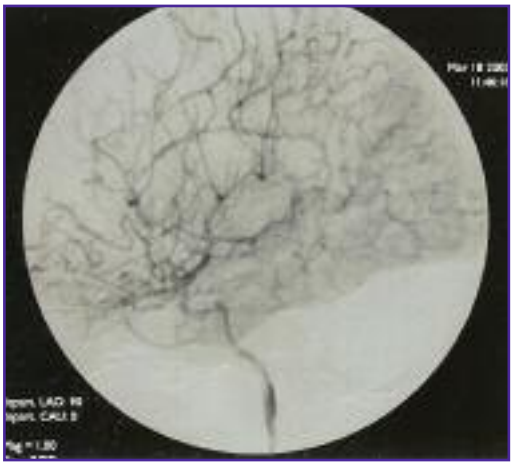
Answers

1. Tinea pedis (also known as Athlete's foot) is a superficial fungal infection caused by species of *Trichophyton*, *Epidermophyton*, or *Microsporum*.

   The infection manifests as fissuring and scaling between the toes (usually the fourth and fifth toes). Inflammatory and vesicular infection can occur on the insteps and soles.
2. Microscopy and culture of skin scrapings can be obtained and analyzed to help determine the cause.
3. Tinea pedis can be treated with topical antifungal creams of the imidazole or allylamine classes.

Provided by: Dr. Hayder Kubba

Case 10: Heather's Headaches



Heather, 18, presents with severe recurrent headaches. A cerebral angiogram is performed.

Questions

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

Answers

1. Moyamoya disease.
2. Moyamoya disease is a chronic, non-atherosclerotic, non-inflammatory, occlusive intracranial vasculopathy of unknown etiology. It is characterized by progressive stenosis or occlusion of the terminal portions of the internal carotid artery, often with involvement of the Circle of Willis, accompanied by the formation of extensive collateral vessels ("moyamoya" vessels) at the base of the brain.

   Children typically present with recurrent transient ischemic attacks or ischemic infarctions which are often precipitated by hyperventilation, crying or blowing.

   Clinical manifestations include:
   - headaches,
   - monoparesis/hemiparesis,
   - sensory deficit, or
   - dysphasia.

   Mental retardation and epileptic seizures may also occur.

   Adults, on the other hand, typically present with intracranial hemorrhage manifesting as disturbance of consciousness and/or hemiparesis. The bleeding is mostly intraventricular or intracerebral and not subarachnoid. Cerebral aneurysms are found in 10% of cases.

   Moyamoya vasculopathy can be idiopathic or can be found in association with a variety of conditions, such as neurocutaneous syndromes, Down syndrome, sickle cell anemia and Graves' disease.
3. Treatment is mainly symptomatic. Antiplatelet agents, such as ASA and vasodilators (*i.e.*, calcium channel blockers), have been used with variable results. Good results have been reported with surgical revascularization of the brain. Dx

Provided by: Dr. Alexander K. C. Leung; and Dr. Justine H. S. Fong