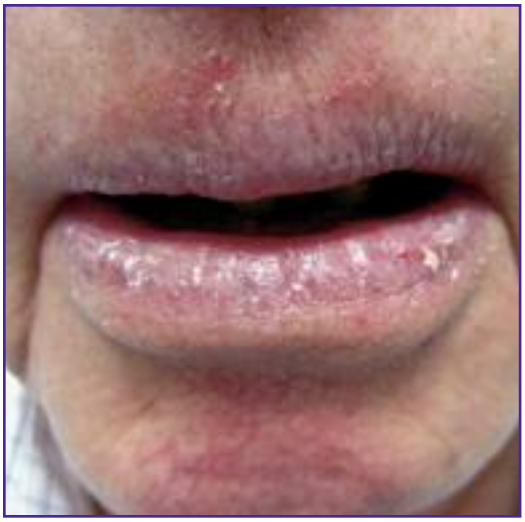
Illustrated quizzes on problems seen in everyday practice

Case 1: Patrick's Papules and Scales



Patrick, 66, presents with scaly erythematous papules on his cheeks and scaling on his lips.

Questions

1. What is the diagnosis for these lip lesions?
2. What is the cause?
3. What are the treatment options?

Answers

1. Actinic cheilitis is a type of actinic keratosis or leukoplakia occurring on the lips. The lips become dry, fissured, scaly and often appear with white discolouration.
2. Chronic ultraviolet light exposure.
3. Treatment includes:
   - liquid nitrogen cryotherapy,
   - laser ablation,
   - topical 5-fluorouracil, or
   - topical imiquimod until the mucosa is smooth in texture.

Provided by: Dr. Benjamin Barankin

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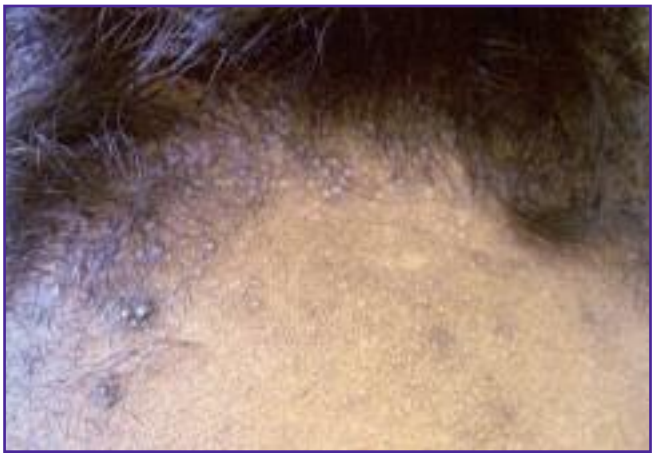
Case 2: Neo's Nodules



Neo, a 36-year-old male from Rwanda, presents with indurated and occasionally pruritic nodules on his occipital scalp and extending onto his posterior neck.

Questions

1. What is the diagnosis?
2. What are possible etiologies for this problem?
3. How would you manage this patient?

Answers

1. Acne keloidalis nuchae. This condition occurs when hair on the back of the head and neck grow into the skin, becomimg inflamed and resulting in scar tissue.
2. Possible causes for this are:
   - short haircuts,
   - curved hair follicles (as seen in African-North American skin),
   - irritation from shirt collars,
   - bacterial infection, or
   - medications.
3. Topical retinoids and potent topical steroids may be beneficial. Intralesional cortisone is commonly employed; less commonly, lesions can be excised.

Provided by: Dr. Benjamin Barankin

Case 3: Steve's Stomach

Steve, 16, presents with a history of burping and poor appetite for three weeks. During that period of time, he lost 4 kg of weight. A first morning urine specimen is acquired and left to stand in a cool location prior to analysis. The urine is positive for ketones but is otherwise unremarkable.

Questions

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

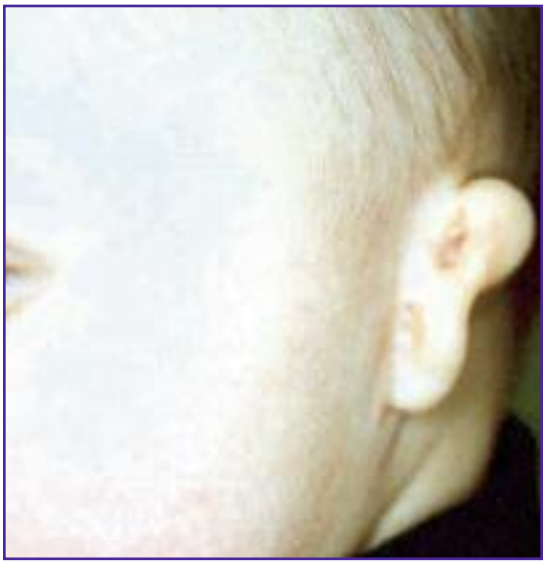
Answers

1. Uric acid precipitates from hyperuricemia, secondary to fasting.
2. Hyperuricemia is due to:
   - increased purine intake,
   - increased uric acid synthesis associated with inborn errors of metabolism,
   - intracellular release of uric acid during cell lysis, or
   - reduced uric acid excretion by the kidney.

   Prolonged hyperuricemia can lead to uric acid nephropathy and renal stones.
3. Whenever possible, the underlying cause should be treated. In Steve's case, optimal caloric intake and hydration is important.

Provided by: Dr. Alexander K. C. Leung; and Dr. W. Lane M. Robson

Case 4: Elijah's Ear



This malformation is rare but clinically significant because of its association with deafness and facial asymmetry.

Elijah, 14-months-old, was born with a left ear abnormality.

Questions

1. What is the diagnosis?
2. Why are abnormalities, such as this, clinically significant?
3. What is the management?

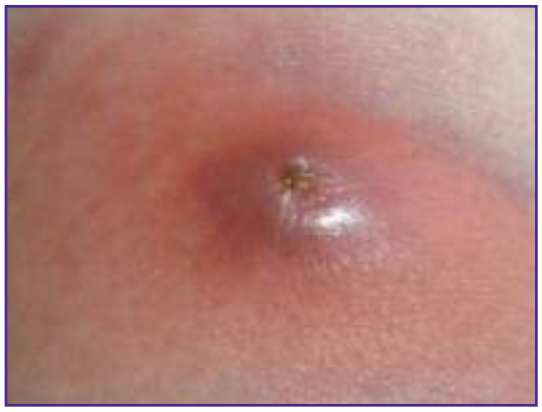
Answers

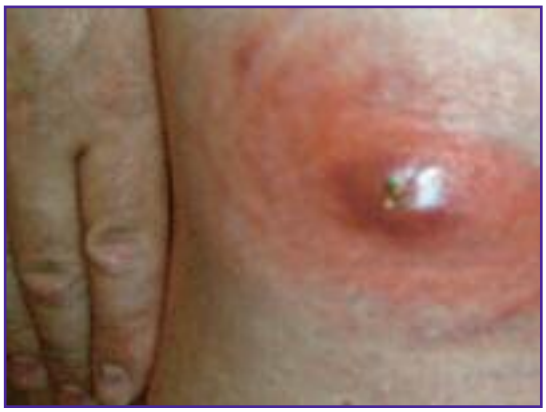
1. A congenital malformation (Treacher Collins syndrome) or the absence of part or all of the ear. In such situations, the pinna may be almost completely absent and represented by a rudimentary bud with major implications for hearing (as there may be an absence of the external auditory canal) and facial appearance.
2. This malformation is rare but clinically significant because of its association with deafness and facial asymmetry. Elijah has severe conductive deafness and had hypoplasia of the mandible and maxilla.
3. Because this case is complicated, management/treatment is not easy. Begin by the testing and then treating for hearing loss so that the child can perform at adequate scholastic levels.

   Plastic surgery can address the receding chin and other defects.

Provided by: Dr. Jerzy Pawlak

Case 5: Boyd's Boil





Boyd, 36, is a soldier in the Canadian Armed Forces. He presents with boil-like lesions that first appeared while he was on duty in Afghanistan. Boyd continued to develop similar lesions on his return to Canada. Initially, small papules with central pustules appeared, typically in the axilla or hip area, which then developed into large tender boil-like lesions that discharged purulent contents and healed with atrophic scarring.

Questions

1. What is the diagnosis?
2. What is a likely causative organism?
3. What treatment options are there?

Answers

1. This is a staphylococcal boil.
2. Community-acquired methicillin-resistant *Staphylococcus aureus* (CAMRSA). CAMRSA is being seen more in ordinary members of the community.[1] Additionally, military personnel are considered to be a high-risk group for CAMRSA infections, along with:
   - athletes,
   - prison inmates,
   - men who have sex with men,
   - IV drug users,
   - the homeless and
   - children in daycare programs.[1-3]
3. The management of purulent abscesses that are suspicious for CAMRSA is principally incision and drainage combined with a sulfa or tetracycline antibiotic as first-line antimicrobial therapy.[1]

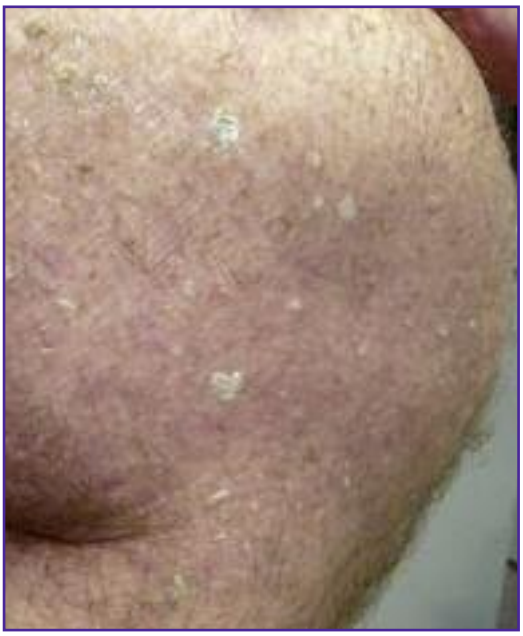
   Alternative antibiotics include, but are not limited to: linezolid, vancomycin and fluoroquinolones.[1]

   It is important that appropriate material is sent for culture to identify the organism and its antibiotic susceptibility.[1] Afterwards, antibiotic therapy can be tailored to the result.

References
1. Elston DM: Community-Acquired Methicillin-Resistant *Staphylococcus Aureus*. J Am Acad Dermatol 2007; 56(1):1-16.
2. Zinderman CE, Conner B, Malakooti MA, et al: Community-Acquired Methicillin-Resistant *Staphylococcus Aureus* Among Military Recruits. Emerg Infect Dis 2004; 10(5):941-4.
3. Ellis MW, Hospenthal DR, Dooley DP, et al: Natural History of Community-Acquired Methicillin-Resistant *Staphylococcus Aureus* Colonization and Infection in Soldiers. Clin Infect Dis 2004; 39(7):971-9.

Provided by: Mr. Aaron Drucker; and Dr. Ruth MacSween

Case 6: Spiro's Spots



Spiro, 64, presents with scaly, stuck-on asymptomatic papules on his legs which he has had for many years. He has no history of skin cancer and has Type 2 diabetes.

Questions

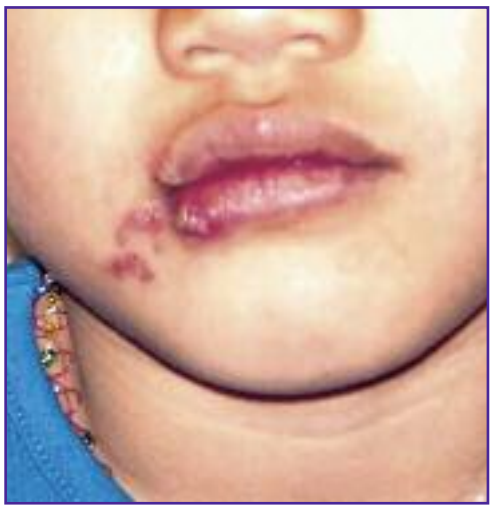
1. What is the diagnosis?
2. Which group of individuals are predominantly affected?
3. What are the most commonly employed treatment modalities?

Answers

1. Stucco keratoses are benign, acquired, papular, warty lesions.
2. Elderly males are most commonly affected, especially on the legs, though it is not known why.
3. Treatment consists of liquid nitrogen cryotherapy and curettage. Topical and oral retinoids are also occasionally used.

Provided by: Dr. Benjamin Barankin

Case 7: Pammy's Painful Lesions



Pammy, 12, presents with painful lesions on the right side of her lips and face. She is afebrile and has a normal appetite.

Questions

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

Answers

1. Herpes simplex and herpes labialis.
2. Primary herpes simplex infection is acquired by direct contact. The incubation period is approximately seven days. Herpes simplex viruses invade the skin and mucous membranes and typically present as discrete groups of vesicles at the site of inoculation. The lesions coalesce to form larger lesions and ulcers and are uncomfortable.

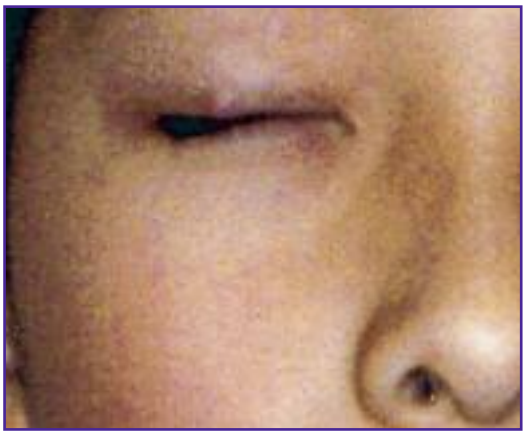
   Healing usually occurs in seven to 14 days. Reactivation of the virus from the trigeminal ganglia results in herpetic ulcerations on the lip and adjacent area on the face.

   Fever, trauma and emotional stress are recognized as factors that precipitate reactivation. Latency can continue through life.
3. Prompt treatment with oral acyclovir (15 mg/kg, five times per day) will shorten the duration of the lesions.

This condition is acquired by direct contact. The incubation period is approximately seven days.

Provided by: Dr. Alexander K. C. Leung; and Dr. W. Lane M. Robson

Case 8: Everett's Eye



The usual causative organism of this lesion is Staphylococcus aureus.

Everett, nine-years-old, presents with a painful lesion on the margin of the right upper eyelid. There is no discharge from the eye. He does not have a fever.

Questions

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

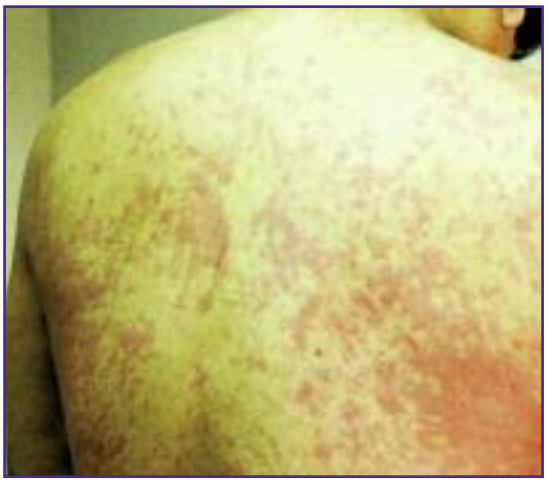
Answers

1. External hordeolum (stye).
2. An external hordeolum is an infection of the ciliary follicle and the associated sebaceous glands of Zeis. The usual causative organism is *Staphylococcus aureus*. The lesion typically begins as a circumscribed swelling along the margin of the eyelid. The lesion usually suppurates spontaneously and drains to the outside. The infection rarely progresses to cellulitis of the eyelid or orbit.
3. An external hordeolum should be treated with frequent applications of a warm compress and an antibiotic ointment such as:
   - erythromycin, or
   - bacitracin.

   Incision and drainage should be considered if the hordeolum does not otherwise resolve.

Provided by: Dr. Alexander K. C. Leung; and Dr. W. Lane M. Robson

Case 9: Bobby's Back



Bobby, 25, has had a daily, itchy eruption on his back for the last week.

Questions

1. What is the diagnosis?
2. What varieties of the condition are encountered?
3. What is the treatment?

Answers

1. Urticaria.
2. The three types of urticaria are:
   - acute (*i.e.*, related to food and drugs),
   - physical (*i.e.*, heat, cold, pressure, solar, cholinergic, aquagenic) and
   - chronic (*i.e.,* uncommonly related to systemic disease).
3. Try to prevent attacks by eliminating etiologic chemicals, drugs or food, especially in chronic, recurrent urticaria. Antihistamines (H1 and H2 blockers) may also be used. Prednisone use is indicated for angioedema-urticaria-eosinophilic syndrome. Dx

Try to prevent attacks by eliminating etiologic chemicals, drugs or food.

Provided by: Dr. Jerzy Pawlak