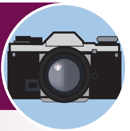
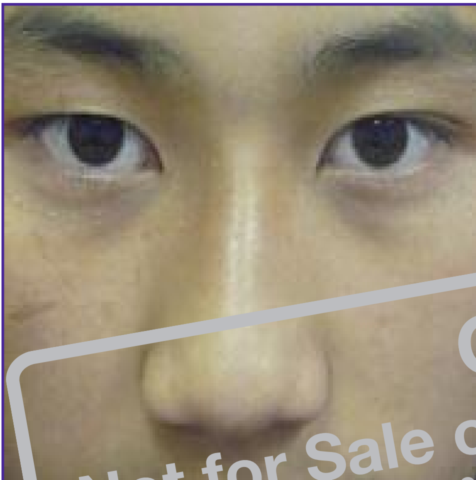


Illustrated quizzes on problems seen in everyday practice

Case 1



White Papules around the Eyes

A 13-year-old boy presents with multiple white papules around his eyes of one year duration. The lesions are asymptomatic. The patient is otherwise in good health. He is not on any medication, and there is no history of trauma.

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Questions

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

Answers

1. Benign primary milia of children
2. Milia present as small (generally 1 to 2 mm), white dome papules. Histologically, they appear as small infundibular cysts that are lined with stratified squamous epithelium with a granular cell layer. Similar to congenital primary milia, benign primary milia of children and adults occur spontaneously. While congenital primary milia favour the nose, benign primary milia of children and adults favour the eyelids and cheeks and tend to persist for longer periods of time. Milia may also occur in association with disease (*e.g.*, epidermolysis bullosa, porphyria cutanea tarda, *etc.*), medication (*e.g.*, topical corticosteroids, penicillamine, cyclosporine), or trauma.
3. Primary milia often exfoliate spontaneously, and, therefore, no treatment is necessary. For persistent lesions, treatment options include simple mechanical evacuation, topical retinoids, electrocautery, electrodessication, or CO_2 laser vaporization.

Provided by: Dr. Alexander K.C. Leung, Dr. Stewart Adams, and Ms. Carmen Fong

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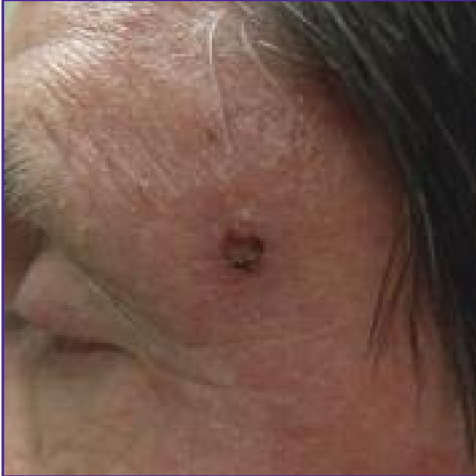
Case 2



Temple Lesion

A 56-year-old-male presents with a two year history of a progressively enlarging lesion over his left temple. He states that he occasionally scratches at it, causing it to bleed, and complains that it never fully heals. The physical examination shows a 3 by 5 mm papular lesion with pearly borders.

Questions.

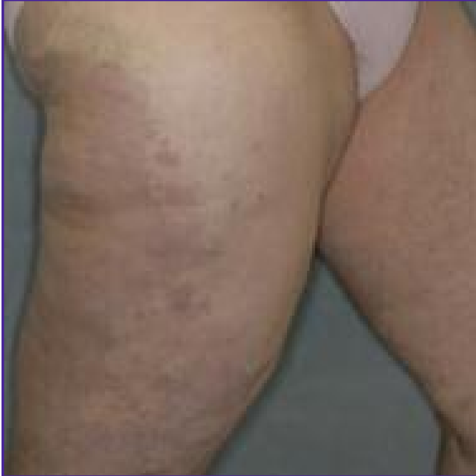
1. What is the diagnosis?
2. What is the etiology of this condition?
3. What is the management?
4. What is the prognosis?

Answers

1. Nodular type basal cell carcinoma (BCC). BCC is the most common type of skin cancer, and it very rarely metastasizes. It arises from basal cells, a type of stem cell found in the deepest layer of the epidermis. A skin biopsy can be performed to confirm the diagnosis.
2. The cause of BCC is believed to involve many factors. The most important environmental factor is exposure to UV light. Other risk factors include Fitzpatrick skin types I or II, exposure to ionizing radiation, or rarer genetic conditions, such as basal cell nevus syndrome.
3. The treatment of choice in most cases is surgical excision. Cryosurgery, electrocautery, and local chemotherapeutic and immunomodulating agents can also be used. Lesions affecting important structures, such as the peri-occular or nasolabial regions, are generally approached with Mohs surgery.
4. The prognosis for BCC is excellent, with nearly a 100% survival rate. However, advanced cases of BCC may lead to dramatic cosmetic disfigurement and severe morbidity due to local invasion and tissue destruction.

Provided by: Dr. Javier Benavides and Dr. Karen Choi

Case 3



Red Plaques on Thigh

A 46-year-old woman presents with a congenital birthmark on her right upper leg. She has large, red plaques and multiple varicose veins covering the majority of her right thigh, which appears noticeably larger than her left thigh.

Questions

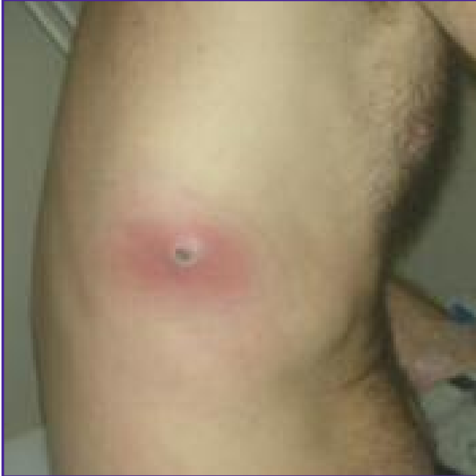
1. What is the diagnosis?
2. What is the treatment?

Answers

1. Klippel-Trénaunay-Weber syndrome (KWTS) is a rare congenital syndrome characterized by the presence of a port wine stain, venous varicosity, and hyperplasia of soft tissue in an extremity. The leg is the most common site.
2. Treatment for KTWS can include compression garments for chronic venous insufficiency or lymphedema. Due to the nature of the complications (for example limb hypertrophy and limb length discrepancies), referral to a dermatologist and other appropriate specialists (such as an orthopedic surgeon) is appropriate.

Provided by: Ms. Sarah MacPhee and Dr. Richard Langley

Case 4



Dorsolateral Lesion

A 25-year-old man presented with this painful dorsolateral lesion. The lesion began, a couple days before, as a small pustule, which drained some pus.

Questions

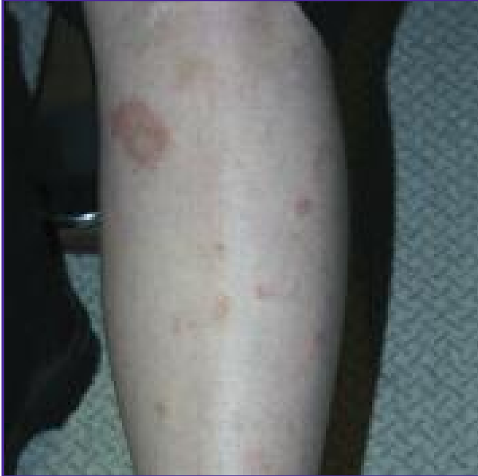
1. What is the diagnosis?
2. What is the treatment?

Answers

1. Cutaneous abcess
2. Drainage of the abcess and antibiotics for the secondary cellulitis

Provided by: Dr. Jean-François Roussy

Case 5



Asymptomatic Rash

A 22-year-old female presents with an asymptomatic rash over her left calf.

Questions

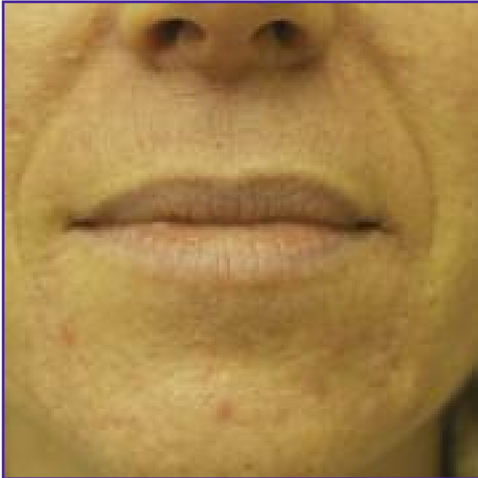
1. What is the differential diagnosis?
2. What is the diagnosis?
3. What is the significance?
4. How do you make the diagnosis?

Answers

1. Viral exanthemas, tinea nummular eczema, drug eruptions, guttate psoriasis, secondary syphilis
2. Pityriasis rosea
3. Pityriasis rosea is a common, benign, usually asymptomatic, distinctive, self-limiting skin eruption of unknown etiology. Typically, a single 2 to 10 cm round-to-oval lesion (the herald patch) abruptly appears. It may occur anywhere on the body, but most frequently it is located on the trunk or proximal extremities. The herald patch retains the same features as the subsequent oval lesions.
4. The diagnosis is made by clinical appearance. Tinea can be ruled out with a potassium hydroxide examination. Secondary syphilis may be indistinguishable from pityriasis rosea, especially if the herald patch is absent. A venereal disease research laboratory test (VDRL) for syphilis should be ordered, especially if the herald patch is absent. A biopsy reveals non-specific features and is of little help. Pityriasis rosea may also be mimicked by psoriasis and nummular eczema.

Provided by: Dr. J. K. Pawlak, Dr. T. J. Kroczak, and Mr. L. Blaszyk

Case 6



Erythematous Papules

A 38-year-old, otherwise healthy female presents with multiple, erythematous papules around the nasolabial folds and chin area. The papules are asymptomatic.

Questions

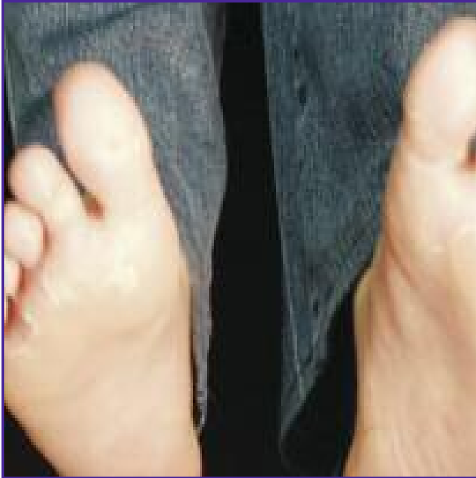
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Perioral dermatitis
2. Perioral dermatitis is a common inflammatory eruption on the face, which usually occurs in children and in young women. Clinically, perioral dermatitis presents as discrete, symmetrical, grouped, erythematous papules that occur in the perioral region, with sparing in the area around the vermillion border. They can start in the perioral region and extend to the nasolabial folds, chin, and occasionally to the lateral eye area. The lesions are generally asymptomatic with no associated comedone. Most cases are idiopathic. The most common identifiable cause is the use of topical corticosteroids, especially potent ones, on the face. Perioral dermatitis may also result from the use of inhaled and, less frequently, systemic corticosteroids.
3. All potential offending agents should be discontinued. For treatment, topical therapy with metronidazole 1% gel once daily or erythromycin 2% twice daily is usually effective. Topical pimecrolimus 1% cream once daily for 4 weeks can also be tried. Oral tetracycline (500 mg twice daily), doxycycline (50 to 100 mg b.i.d.) for four weeks may also be employed.

Provided by: Dr. Alex H.C. Wong, Dr. Andrew Werchniak, and Dr. Alexander K.C. Leung

Case 7



Peeling Hands and Feet

A 7-year-old girl visited the clinic, because she developed peeling of the skin over her palms and soles two weeks after symptoms of pharyngitis with body rash and red tongue appeared.

Questions

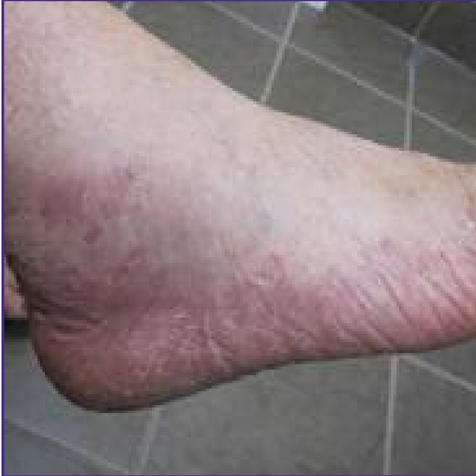
1. What is a possible diagnosis of the disease?
2. What is the significance?

Answers

1. Scarlet fever
2. Scarlet fever occurs in those patients with streptococcal pharyngitis in whom the infected organism produces an erythrogenic toxin. The exanthema of scarlet fever includes a tongue that may be bright red with large papillae (raspberry tongue). The rash appears shortly after the onset of the sore throat (usually within two days) and involves the neck, upper chest, and back and then spreads to the remainder of the trunk and extremities. The palms and the soles are spared. Extensive desquamation of the palms and soles is characteristic of scarlet fever.

Provided by: Dr. J.K.Pawlak and Dr. T.J. Kroczak

Case 8



Scaly Area on Feet

A 47-year-old female presents with a pruritic, scaly area on her feet.

Questions

1. What is the diagnosis?
2. What are the different presentations of this condition?
3. How would you manage this patient?

Answers

1. Tinea pedis
2. The different presentations include interdigital, chronic hyperkeratotic, inflammatory/vesicular, and ulcerative.
3. Topical antifungals (*e.g.*, azoles, allylamines, ciclopirox olamine) administered b.i.d. for two to six weeks are usually sufficient.

Provided by: Dr. Benjamin Barankin

Case 9

Purple Blister

A 30-year-old male presents with a violaceous, hemorrhagic bulla on his left fifth digit. He has no recent history of injury to the hand, but he had a wart treated by another physician before developing the condition.

Questions

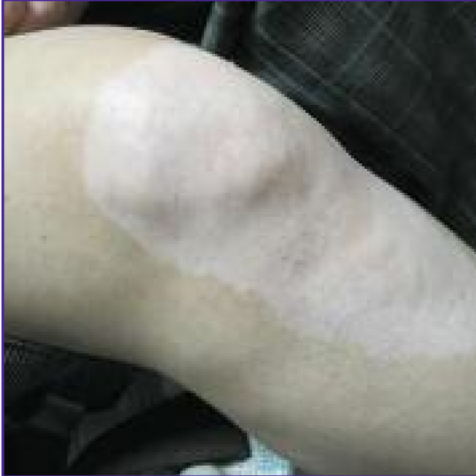
1. What is the diagnosis?
2. What is the significance?

Answers

1. This lesion is a hemorrhagic bulla resulting from cryosurgery (liquid nitrogen treatment), which was used to treat a common wart.
2. Common warts (verruca vulgaris) typically appear as dome-shaped, gray-brown hyperkeratotic papules or plaques with black dots representing thrombosed capillaries. Cryosurgery is commonly used to treat warts. Before applying the liquid nitrogen, the hyperkeratotic material should be pared. Liquid nitrogen is then applied with either a spray or a cotton-tipped applicator to freeze a 1 to 2 mm zone around the wart. Maintain the liquid nitrogen on lesional skin for approximately five seconds. A small blister, and sometimes hemorrhage, is expected as a result of this treatment. Excessive and prolonged freezing can result in a larger hemorrhagic blister, which eventually heals with scarring.

Provided by: Ms. Jessica Corbin and Dr. Richard Langley

Case 10



White Patches

A 44-year-old female with asymptomatic white patches on her knees is wondering how to treat her condition.

Questions

1. What is the diagnosis?
2. What are the common areas where this rash is found?
3. What is the treatment?

Answers

1. Vitiligo
2. Bony prominences (*e.g.*, elbows, knees), ventral wrists, dorsal hands, and commonly around body orifices (*e.g.*, around mouth)
3. For localized involvement, topical steroids or topical calcineurin inhibitors can be employed. Phototherapy is more practical for widespread involvement.

Provided by: Dr. Benjamin Barankin

Case 11

Sweaty Palms

A 24-year-old African American male presents with sweaty palms of several years duration. He finds this condition incredibly embarrassing and has not found anything that helps it.

Questions

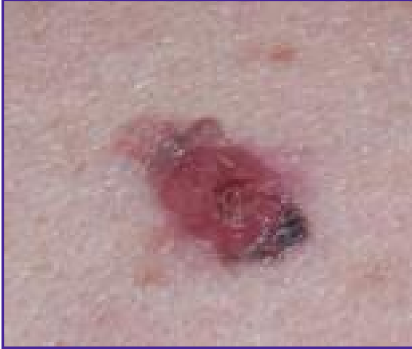
1. What is the diagnosis?
2. What ethnic group is most frequently affected?
3. How would you manage this condition?

Answers

1. Hyperhidrosis (palmar)
2. The Japanese
3. Topical antiperspirants, especially those containing aluminum chloride, applied at night-time are the first-line treatment for hyperhidrosis. Other options include iontophoresis, oral anticholinergics (*e.g.*, glycopyrrolate, oxybutynin), and botulinum toxin injections. If medical therapy fails, surgery is an option.

Provided by: Dr. Benjamin Barankin

Case 12



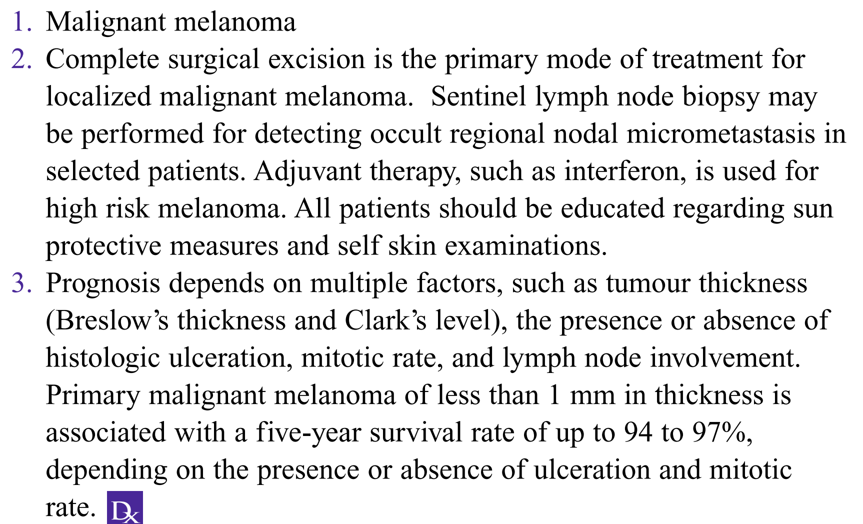
Changing Lesion on the Back

A 45-year-old male presents with a changing lesion on his back. It has been present for a few months and the colour seems to have changed recently according to his wife.

Questions

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

Answers



1. Malignant melanoma
2. Complete surgical excision is the primary mode of treatment for localized malignant melanoma. Sentinel lymph node biopsy may be performed for detecting occult regional nodal micrometastasis in selected patients. Adjuvant therapy, such as interferon, is used for high risk melanoma. All patients should be educated regarding sun protective measures and self skin examinations.
3. Prognosis depends on multiple factors, such as tumour thickness (Breslow's thickness and Clark's level), the presence or absence of histologic ulceration, mitotic rate, and lymph node involvement. Primary malignant melanoma of less than 1 mm in thickness is associated with a five-year survival rate of up to 94 to 97%, depending on the presence or absence of ulceration and mitotic rate. Dx

Provided by: Dr. Francesca Cheung