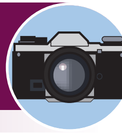
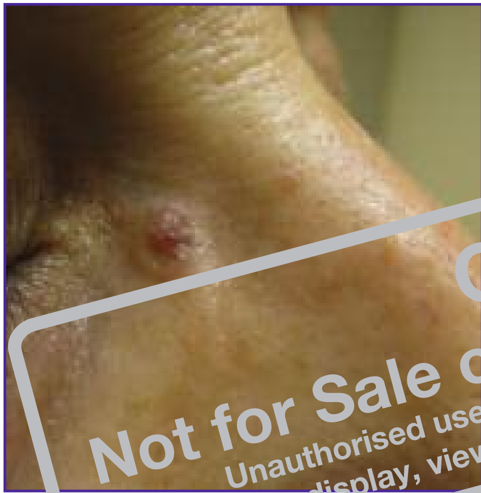
Photo Diagnosis



Illustrated quizzes on problems seen in everyday practice

Case 1



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Nose Papule

A 55-year-old female presents with an asymptomatic papule on her nose that has been present for eight months.

Questions

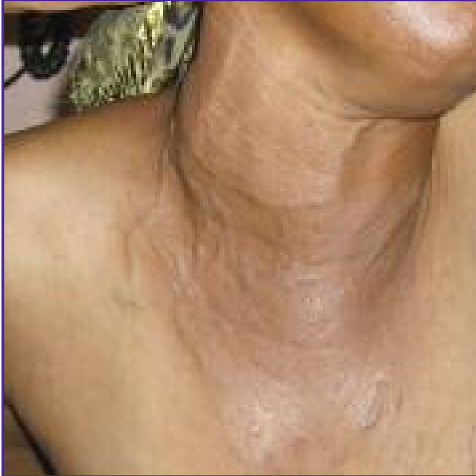
1. What is your diagnosis?
2. What are the different clinical subtypes of this lesion?
3. How would you treat this lesion?

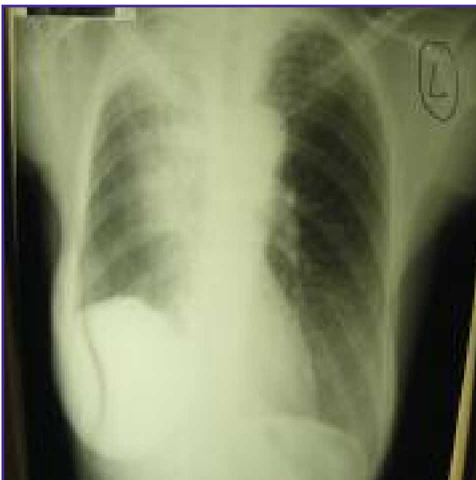
Answers

1. Basal cell carcinoma (BCC)
2. Nodular, superficial, pigmented, and morpheaform
3. Surgical excision or electrodessication and curettage are good treatment options. If accessible, Mohs surgery should be strongly considered because of the proximity to the eye.

Provided by: Dr. Benjamin Barankin

Case 2





Prominent Neck Veins

A 62-year-old woman presents with a four month history of increasing shortness of breath, headache, and prominent neck veins.

Questions

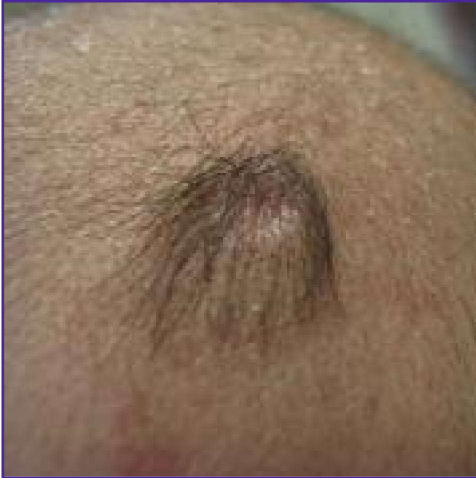
1. What is the diagnosis?
2. What is the treatment?

Answers

1. Superior vena cava obstruction (SVC) is the diagnosis. Compression of the SVC is most frequently associated with malignancy, in approximately 90% of cases. Syphilis and tuberculosis have also been known to cause it. The thin wall of the SVC and its low intravascular pressure mean that it is reasonably easy to compress. The obstruction can lead to collateral vein dilation and facial oedema. Diagnosis is made via clinical examination, chest X-ray, which may show the cancer or mediastinal widening, CT scans, which should be contrast enhanced and will help show the underlying cause, and transbronchial needle aspiration at bronchoscopy. In this case, the SVC was caused by a malignginant tumour of the right lung.
2. Several methods of treatment are possible including drug and surgical approaches. Diuretics can help reduce venous return and reduce pressure in the SVC. Glucocorticorsteroids can help reduce the inflammatory response and oedema surrounding the tumour. Symptoms can be relieved by radiotherapy.

Provided by: Dr. Bethany Eve Sanders and Mr. David Barlow

Case 3



Odd Hair Growth

A 4-month-old boy presents with cradle cap on the scalp and lesions of atopic dermatitis on the face. The father is wondering why there is a ring of long, dark hair surrounding a patch with no hair growth and would like to know the significance of the lesion.

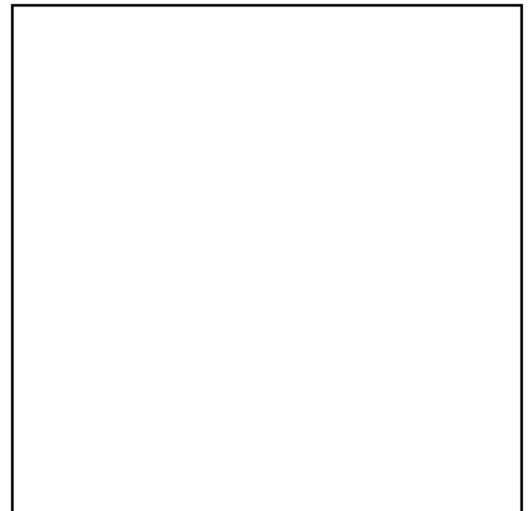
Questions

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

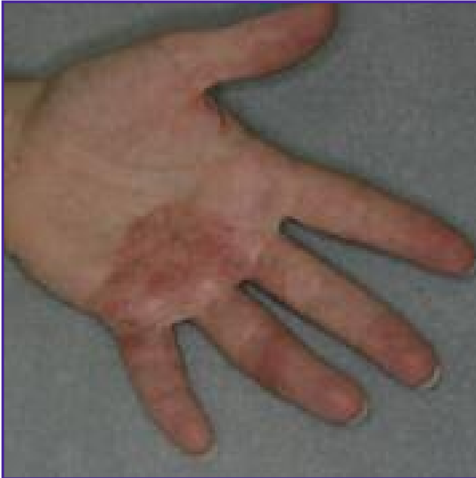
Answers

1. Hair collar sign
2. Hair collar sign refers to a ring of long, dark, coarse hair surrounding a patch of congenital alopecia or a midline scalp nodule. The sign is a cutaneous marker for cranial neuroectodermal defects and is often associated with encephaloceles, cranial meningoceles, and dermoid cysts. Aplasia cutis congenita has also been associated with the hair collar sign. Aplasia cutis congenita may present as an erosion, scar, or membrane. The latter, referred to as membranous aplasia cutis congenita, is the most common form. Membranous aplasia cutis congenital is usually sporadic and has no associated anomaly.
3. Treatment depends on the underlying cause. A skull X-ray should be performed to rule out any bony defect. CT or MRI should be done to evaluate for intracranial involvement, should there be a skull defect or a scalp nodule.

Provided by: Dr. Alexander K.C. Leung, Dr. Stewart Adams, and Dr. Alex H.C. Wong



Case 4



Scaly Eruption

A 38-year-old female presents with an erythematous, scaly eruption on her right palm and on the palmar and dorsal surfaces of her left hand. The eruption has been present on her left hand for one year, but only appeared on her right hand four months ago.

Questions

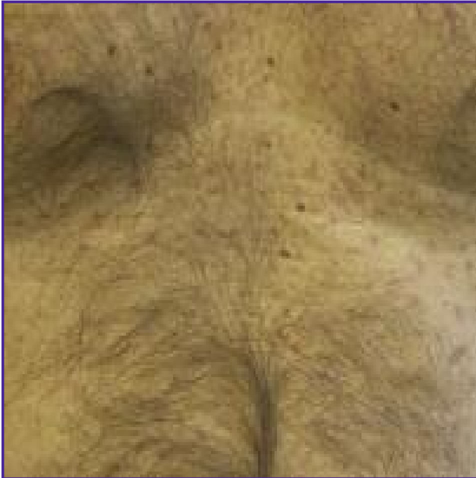
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Allergic contact dermatitis (ACD) is an inflammatory reaction caused by the absorption of an antigen into the skin. The inflammatory reaction involves a sensitization stage, where antigen applied to the skin ultimately results in the creation of immunological memory. When the individual is re-exposed to this antigen, the elicitation phase occurs, whereby the antigen-specific T-lymphocytes recognize the antigen and cause the release of inflammatory mediators. The clinical appearance is most often characterized by macular erythema and papules, vesicles, or bullae and tends to vary according to its location. After an initial response, ACD may develop within 12 to 48 hours of antigen exposure.
2. ACD is a dermatological problem that is seen frequently in the clinic. Determining the antigen responsible can be frustrating for both patients and physicians, especially when the sensitizing antigen has a similar chemical structure to other allergens. Patch testing can be performed to identify the allergen.
3. Generally, ACD can be prevented by avoiding the allergen once the patient has been sensitized. In some cases, patients can manage ACD by carefully reading product labels, minimizing the use of topical products, and using ointments instead of creams. Glucocorticoids or macrolactams may be used for treatment of acute ACD.

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

Case 5



Papules on the Chest

A 71-year-old otherwise healthy male presents with multiple, moderately pruritic, erythematous papules on the chest, abdomen, and back. There is exacerbation of the lesions when he runs.

Questions

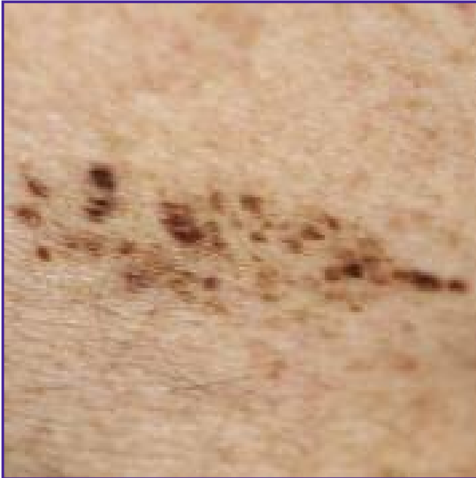
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Grover's disease, also known as transient acantholytic dermatosis or benign papular acantholytic dermatosis.
2. Grover's disease is characterized by a benign eruption of erythematous polymorphic papules with pruritus that varies in intensity. The lesions are more commonly found on the trunk. They usually occur acutely and can be either transient or recurrent. Exacerbation occurs with heat, sweat, sunlight exposure, and friction. Grover's disease mainly occurs in patients over 50 years old. Histological examination shows focal acantholytic dyskeratosis.
3. Therapy involves mainly symptomatic control. Avoidance of exacerbating factors is important. Topical corticosteroids or calcineurin inhibitors can be first line therapies. Retinoids, isotretinoin, and PUVA phototherapy can be used if patients do not respond to topical therapies.

Provided by: Dr. Alex H.C. Wong, Dr. Ernesto Gonzalez, and Dr. Alexander K.C. Leung

Case 6



Brown Speckled Forearm

A 23-year-old male presents with a lightly pigmented patch that contains macules and papules that range from light to dark brown in colour. The lesion has been present for as long as the patient can remember and no changes have occurred.

Questions

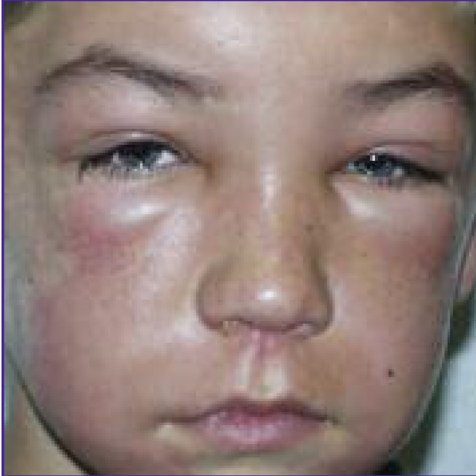
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. This patient has a nevus spilus (speckled lentiginous nevus), which is defined as an irregularly shaped pigmented lesion that is speckled with macules and papules in varying shades of brown. The size of a nevus spilus may range from 1 to 20 cm.
2. These nevi usually appear in childhood and may continue to develop over time. The anatomical location and the time of onset of a spilus nevus are not related to sun exposure. The risk of developing malignant melanoma in these lesions is relatively low.
3. No treatment is required as a result of the benign nature of these lesions. Patients may choose to have a nevus spilus removed for cosmetic reasons. A biopsy should be performed if melanoma is suspected.

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

Case 7



Itchy, Swollen Face

A 12-year-old boy developed an itchy, swollen face and hands shortly after using a new soap.

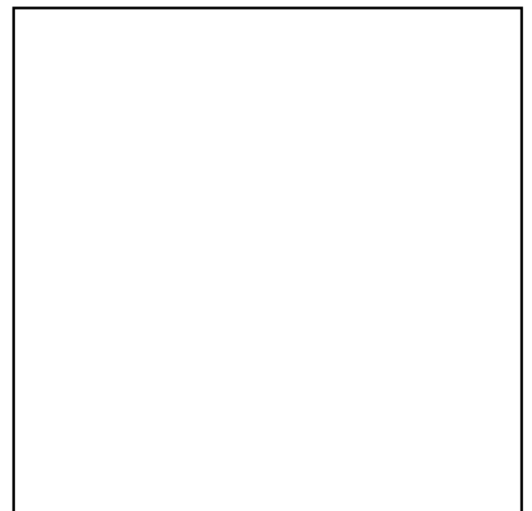
Questions

1. What is the diagnosis?
2. What is the significance?
3. What is a hereditary angioedema?

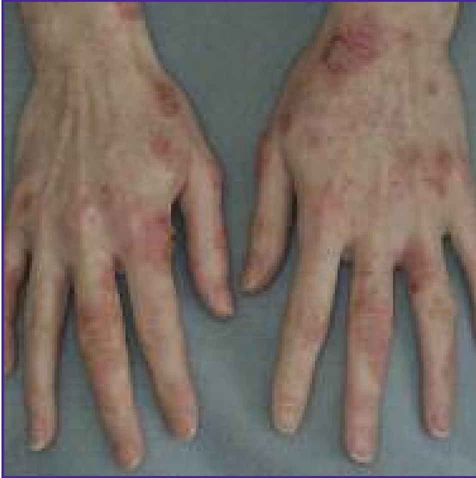
Answers

1. Angioedema and urticaria.
2. The superficial layers of the dermis are usually involved in urticaria when subcutaneous tissue and deeper layers of the dermis are involved. The condition is described as angioedema. One-half of affected patients experience both urticaria and angioedema. Urticaria lesions last for a few hours, but a combination of urticaria and angioedema will tend to last longer.
3. Hereditary angioedema is a dangerous but rare autosomal dominant trait that is due to a functional deficiency of C1 esterase inhibitors. In this condition, laryngeal obstruction is a real risk.

Provided by: Dr. J.K.Pawlak and Mr. Pawel Utko



Case 8



Crusted Plaques

A 44-year-old woman presents with nummular crusted plaques on her wrists and dorsal hands, involving several of her fingers. Her condition has been ongoing for approximately ten years, but it has gotten progressively worse over the past five years.

Questions

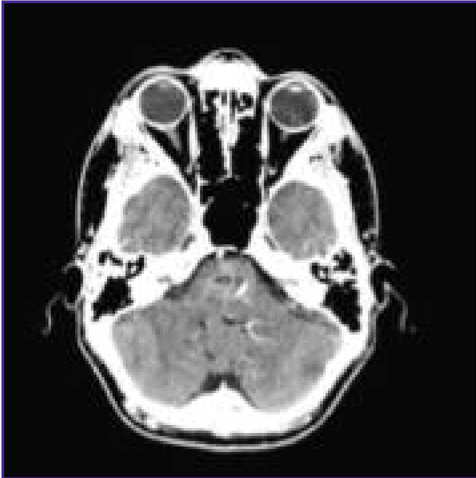
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

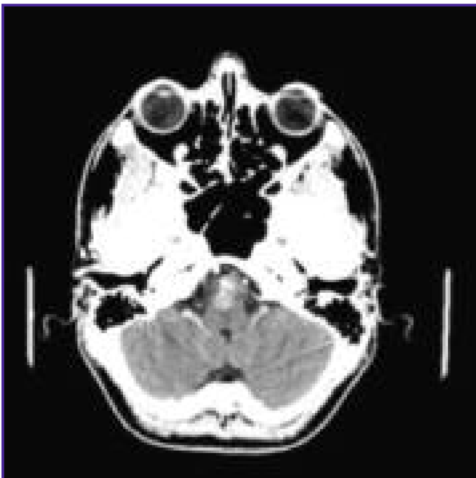
Answers

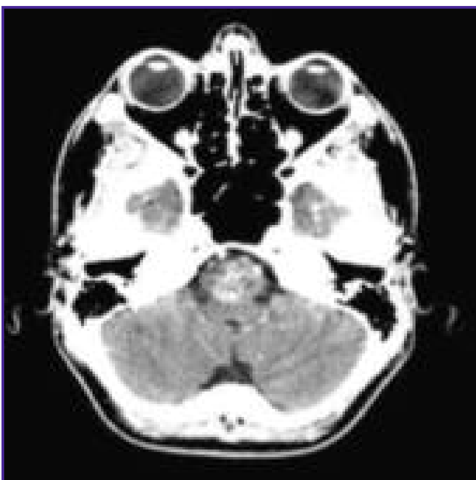
1. This patient was diagnosed with nummular dermatitis.
2. The specific cause of nummular dermatitis is unknown, however, microbial infection may play a role. The typical lesion is a discoid (nummular) shaped, erythematous crusted plaque that occassionally has vesicles and measures 2 to 5 cm in diameter. Lesions are often pruritic and, with scratching, cause oozing and crusting of the serosanguinous fluid contained in the vesicles. Lesions are most commonly located on the back of the hand, trunk, and lower extremities, with the head often spared. Potential initiating or exacerbating factors should be minimized.
3. The treatment of choice is a topical steroid in an emollient base, and antibiotics may be required in cases where the affected skin has become secondarily infected. In addition, avoidance of irritants (if identified) may be helpful.

Provided by: Dr. Anna Chaplin and Dr. Richard Langley

Case 9







Severe Headaches

A 30-year-old male presents with a history of one episode of severe headaches, blurred vision, tingling sensation, and numbness in the left hand, arm, and left side of the body that has lasted 20 hours. He visits the office six months later with complaints of recurrent headaches. The results of his neurological exam were within normal limits. A CT scan of the brain was performed.

Questions

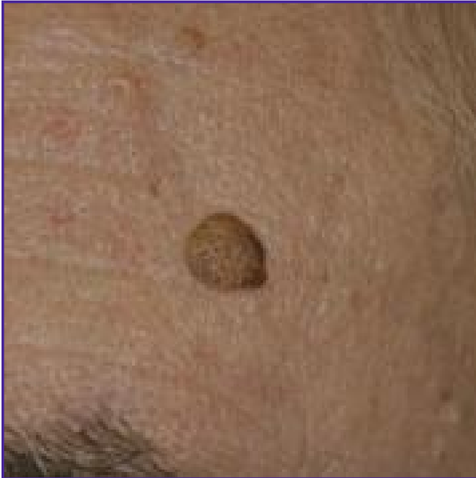
1. Have you seen any intracranial pathology?
2. What is your possible diagnosis?
3. How will you manage this patient?

Answers

1. Yes, the CT scan suggests the presence of a brain stem lesion in the central pons.
2. Cavernoma, cavernoma with previous hemorrhage, venous angioma glioma
3. Patient needs further investigation, including a special MRI scan with gadolinium enhancement and neurological and neurosurgeon assessment and treatment.

Provided by: Jerzy K. Pawlak

Case 10



A Raised, Brown Plaque

This 71-year-old man presents with a raised, brown plaque on the left temple.

Questions

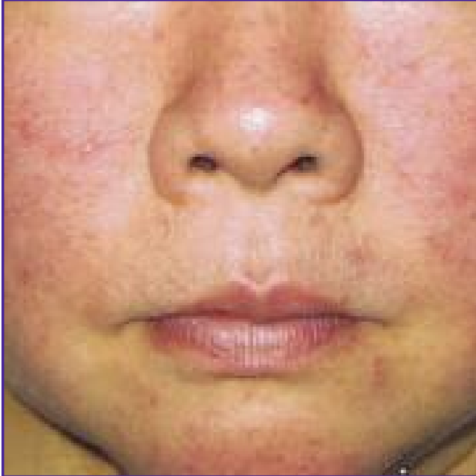
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. This patient has a seborrheic keratosis. A seborrheic keratosis is a common, benign, cutaneous growth. Lesions vary in size from a few millimeters to several centimeters and are raised and tan or brown in colour with well-defined margins. Surface characteristics can vary with the age and location of the lesion. The appearance can be smooth with small, white, embedded pearls of keratin, or rough with a dry, irregular surface that crumbles when manipulated. Seborrheic keratosis lesions appear to be "stuck on the surface of the skin."
2. While Seborrheic keratosis lesions are benign, they may resemble melanoma, particularly if the border of the lesion is irregular and the pigment is variable. Surface features, such as the presence of keratinocytic cysts, can differentiate seborrheic keratosis from melanoma. Furthermore, seborrheic keratoses generally have a more uniform appearance, while melanomas tend to have more variability in shape and colour, as well as a history of change.
3. Lesions may be left untreated. Removal may be recommended for cosmetic reasons or to treat irritation. Several methods of removal may be recommended; however, surgical biopsy is generally the preferred method if malignancy is included in the differential diagnosis. Cryosurgery may also be used; however, there may be a risk of scarring and changes in pigmentation following removal.

Provided by: Lesley Latham and Dr. Richard Langley

Case 11



Facial Redness

A 39-year-old female has a two-year history of persistent facial erythema, telangiectasia, and inflammatory papulopustular eruption on the cheeks and chin. The symptoms tend to be worse with consumption of alcohol and hot beverages.

Questions

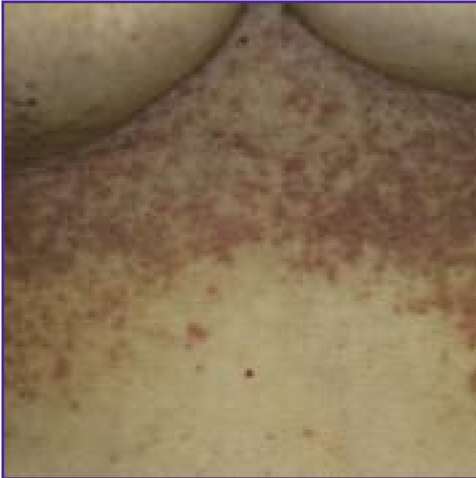
1. What is the diagnosis?
2. What is the investigation?
3. What are the treatment options?
4. What is the prognosis?

Answers

1. Rosacea
2. The diagnosis of rosacea is made clinically.
3. Rosacea triggers should be identified and avoided if possible. Common triggering factors include hot or cold temperatures, caffeinated products, hot beverages, spicy foods, alcohol, and topical products that irritate the skin. Topical metronidazole is commonly used as a first-line agent. Topical azelaic acid and sulfacetamide products are sometimes used. Systemic antibiotics, such as minocycline, doxycycline, and erythromycin, may be used in severe cases. Lasers are beneficial for some patients.
4. The disease takes a chronic relapsing, or progressive, course. However, most patients reach a stable state with variable residual symptomatology.

Provided by: Dr. Francesca Cheung

Case 12



Crusted Papules

A 40-year-old woman presents with a history of multiple scaling, crusted, and pruritic papules that have converged into plaques. The lesions are predominantly localized in the fold beneath the breast. The patient recalls first noticing the lesions in her twenties.

Questions

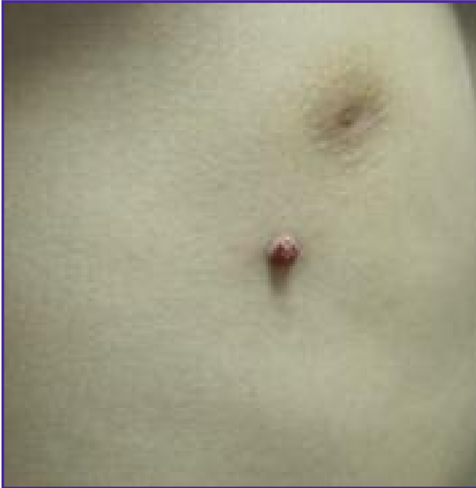
1. What is the diagnosis?
2. What is the treatment?

Answers

1. Darier's disease, or keratosis follicularis, is a pruritic, autosomal dominant inherited disease with multiple discrete scaling, crusted, and pruritic papules that usually occur on the chest, back, ears, nasolabial folds, forehead, scalp, or groin. It is characterized by abnormal keratinization and loss of epidermal adhesion. Darier's disease is malodorous and often painful. Nail thinning and splitting and mucous membranes involvement are also noted. Oral mucous membranes may be afflicted, and their involvement is indicated by white, centrally depressed papules. Darier's disease usually presents abruptly for the first time in the first or second decade of life after precipitating factors. It is frequently worse in heat and humidity, and can be exacerbated by mechanical trauma and bacterial infections.
2. Darier's persists throughout a patient's life and is not associated with any cutaneous malignancies. Management includes the use of sunscreen to avoid UV-induced exacerbations, avoidance of friction, antibiotic therapy to suppress bacterial infection, as well as topical or systemic retinoids. Systemic therapy can be modified according to seasonal variation of the disease.

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

Case 13



Bleeding Papule

A 13-year-old male presents with a periodically bleeding papule on his chest.

Questions

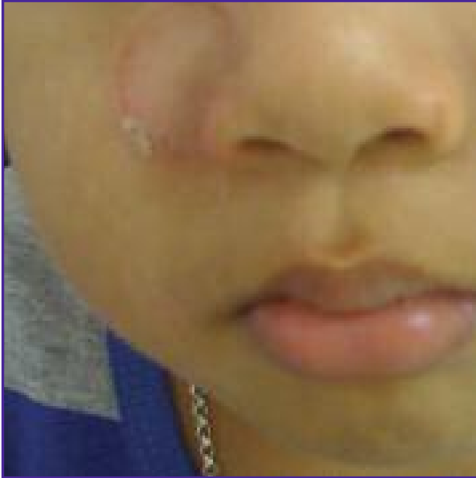
1. What is your diagnosis?
2. What questions should you ask while taking his history?
3. How would you treat this person?

Answers

1. Pyogenic granuloma
2. Was there any preceding trauma before development of this lesion? Does this lesion bleed easily? Is it fragile?
3. Excision with electrocautery is quite effective. Cryotherapy and laser are also therapeutic options.

Provided by: Dr. Benjamin Barankin

Case 14

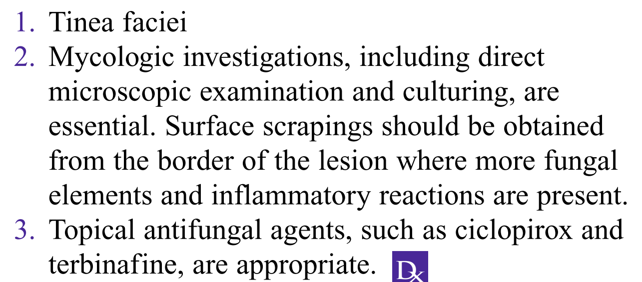


Pruritic Facial Lesion

A 6-year-old male developed a pruritic, erythematous, scaly plaque on the right cheek/paranasal area after returning from his vacation in the Philippines with his family. The lesion has an active border composed of papules and crusts.

Questions

1. What is the diagnosis?
2. What are the investigations?
3. What is the treatment?



Answers

1. Tinea faciei
2. Mycologic investigations, including direct microscopic examination and culturing, are essential. Surface scrapings should be obtained from the border of the lesion where more fungal elements and inflammatory reactions are present.
3. Topical antifungal agents, such as ciclopirox and terbinafine, are appropriate. Dx

Provided by: Dr. Francesca Cheung