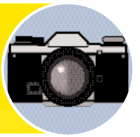
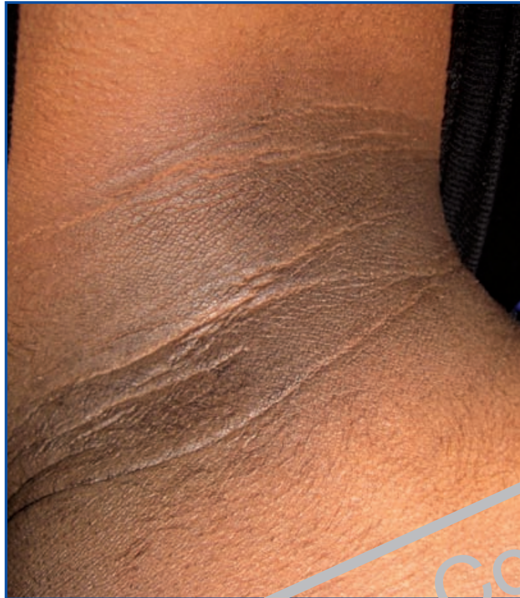
Photo Diagnosis



Illustrated quizzes on problems seen in everyday practice

Case 1: Vic's Velvety Patches



Vic, 14, presents with thick, brown, velvety skin around his neck, axillae and groin. He has put on significant weight in the past year and because diabetes runs in his family, his physician recently told him to lose weight.

Questions

1. What is your diagnosis?
2. What is the most common form of this condition?
3. How would you manage this condition?

Answers

1. Acanthosis nigricans (AN).
2. Obesity-associated AN.
3. Lesions can regress significantly with weight reduction. Topical therapies are otherwise usually unsatisfactory. Patients should not scrub the affected areas.

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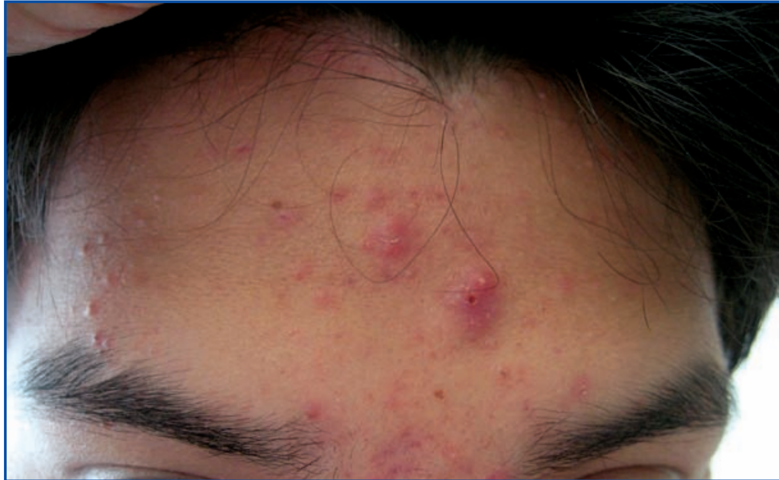
Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 2: Frank's Forehead



Frank, 17, is embarrassed by the inflamed papules and nodules on his forehead and cheeks, which have been present for the past three years. His chest and back are similarly affected.

Questions

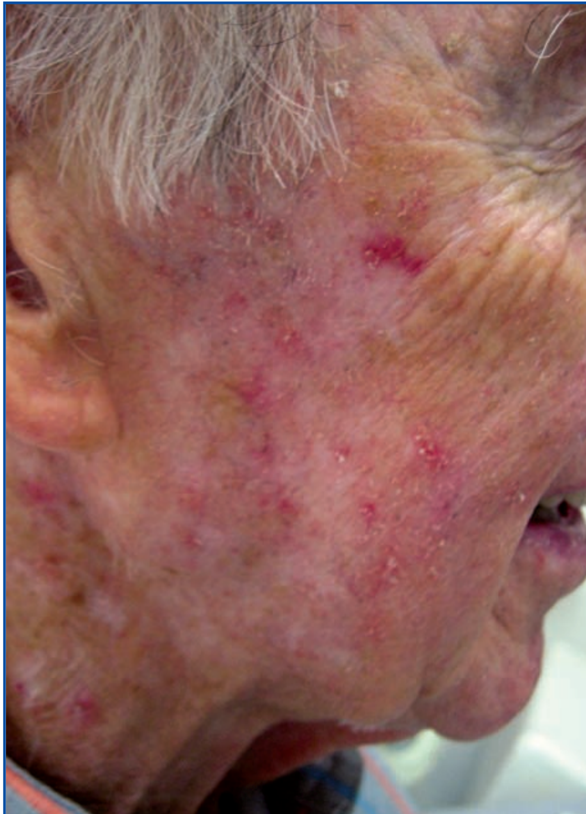
1. What is your diagnosis?
2. What treatment options might you consider in a female patient that you wouldn't in a male patient?
3. How would you manage the patient?

Answers

1. Acne vulgaris.
2. Spironolactone and OC pills.
3. In light of involvement of the trunk, systemic therapy would be warranted which would include a three-month to six-month course of a tetracycline-family antibiotic or isotretinoin.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 3: Ronny's Red Blotches



Ronny, a 74-year-old retired farmer presents with red, scaly, rough papules that have been present for many years on his cheeks, temple and scalp.

Questions

1. What is your diagnosis?
2. What is the main concern with these lesions?
3. Why does he have blotchy white areas on his cheek?

Answers

1. Actinic keratoses (AKs).
2. Progression over time to squamous cell carcinoma in AKs left untreated.
3. Overly aggressive liquid nitrogen cryotherapy damages melanocytes.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

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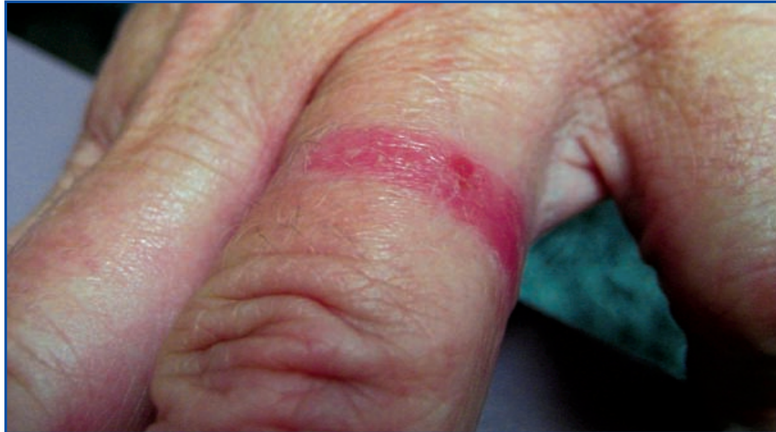
Case 4: Barbara's Red Band



Barbara, 34, presents with a pruritic erythematous band, which has become an increasing nuisance on her wedding-ring finger.

Questions

1. What is your diagnosis?
2. What composition of band should she consider if purchasing a new ring or having her ring re-banded?
3. How would you manage this lesion?

Answers

1. Allergic contact dermatitis, likely to nickel, but possibly gold.
2. Titanium or platinum.
3. Potent topical steroids applied b.i.d. until the rash clears and avoidance of wearing the ring. Also, patch testing to confirm the specific cause would be prudent, so as to provide better counselling.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

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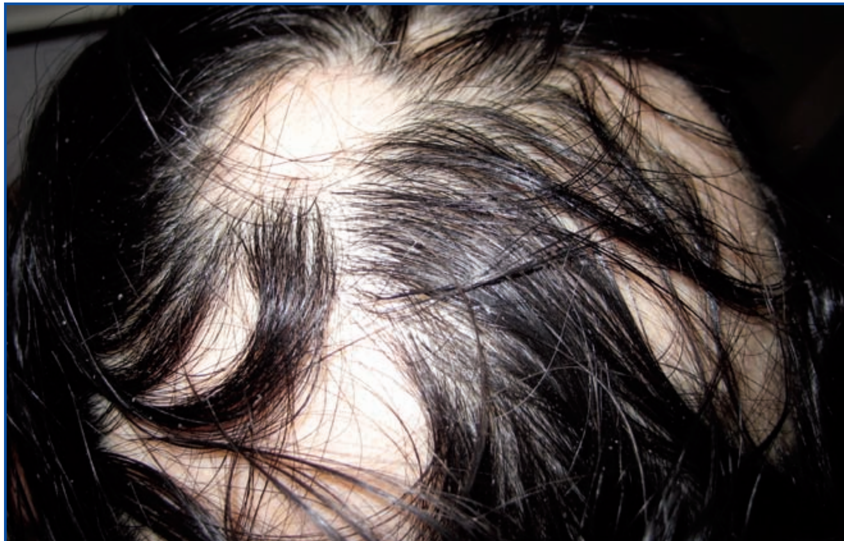
Case 5: Sandy's Scalp



Sandy, 23, presents with large areas of hair loss and nail pitting, which have been present for over one year.

Questions

1. What is your diagnosis?
2. What are the variants of this condition?
3. How would you treat these lesions?

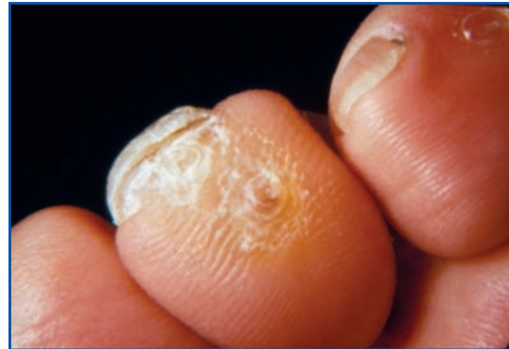
Answers

1. Alopecia areata.
2. The variants include:
   - alopecia totalis,
   - alopecia universalis,
   - alopecia (oophiasis pattern),
   - alopecia (sisaipho pattern) and
   - alopecia (reticular pattern).
3. Typically, intralesional triamcinolone acetonide is injected every four weeks to six weeks in affected areas. Potent topical steroids can also be used, as can anthralin, diphencyclopropenone sensitization and topical minoxidil.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 6: Troy's Toe Tips

Troy, 45, has developed a painful lesion on the tip of his toes.



Questions

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

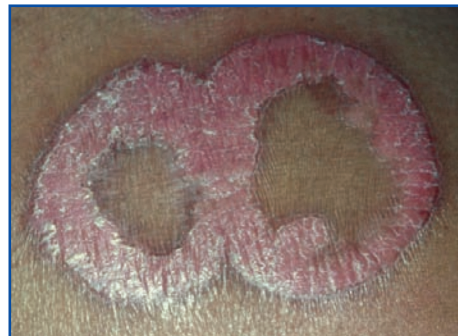
Answers

1. Painful corn.
2. Plantar wart. The absence of thrombosed capillaries, with paring, would tend to eliminate this diagnosis.
3. Frequent paring, orthotics and pressure relief. If due to a hammer toe deformity, surgery may be helpful.

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

Case 7: Ray's Scaly Rings

Ray, 55, has developed these annular, scaly lesions over his trunk and extremities in the last six months.



Questions

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

Answers

1. Annular psoriasis.
2. The differential diagnosis would include tinea corporis, as well as subacute lupus erythematosus.
3. Topical steroids or topical calcipotriol and/or UV light therapy.

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

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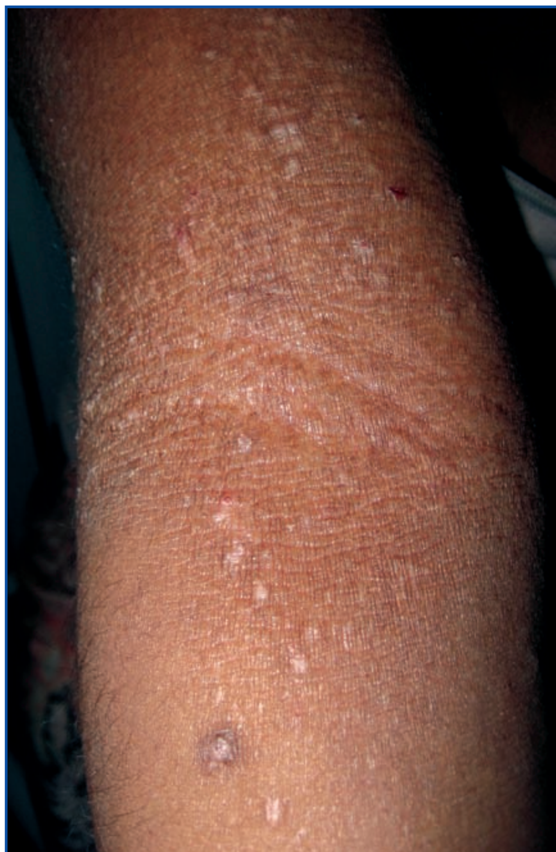
Case 8: Shaila's Dry Skin



Shaila, a 28-year-old female from Sri Lanka, presents with a lifelong history of pruritus and dry skin. Her sister has asthma and an aunt has allergies to mold.

Questions

1. What is your diagnosis?
2. How does this condition typically manifest in adulthood?
3. How would you manage this condition?

Answers

1. Atopic dermatitis.
2. Typically, atopic dermatitis presents as hand dermatitis in adulthood, although generalized atopic dermatitis is not uncommon and can be quite debilitating.
3. Education about proper bathing and moisturizing practices are important. Potent topical steroids to lichenified areas of skin and milder steroids or topical calcineurin inhibitors (*e.g.*, tacrolimus) to the face and skin folds are beneficial. If sleep is impaired, sedating antihistamines can be beneficial at nighttime. If the disease flares up, either phototherapy, systemic steroids or cyclosporine can be beneficial.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

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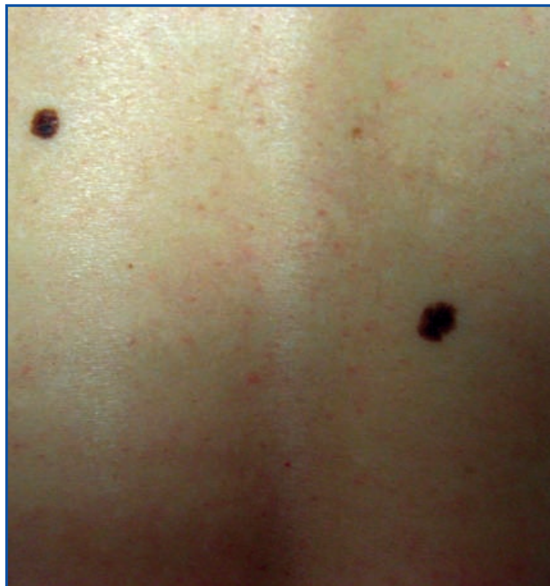
Case 9: Mindy's Moles



Mindy, 38, presents with two dark moles on her back. Her husband is worried about them and she is uncertain of the duration of their presence, or if there has been any change in their size or colour. An aunt had melanoma and her father died of pancreatic cancer.

Questions

1. What is your diagnosis?
2. Do most melanomas develop *de novo* or in pre-existing moles?
3. How would you manage this patient?

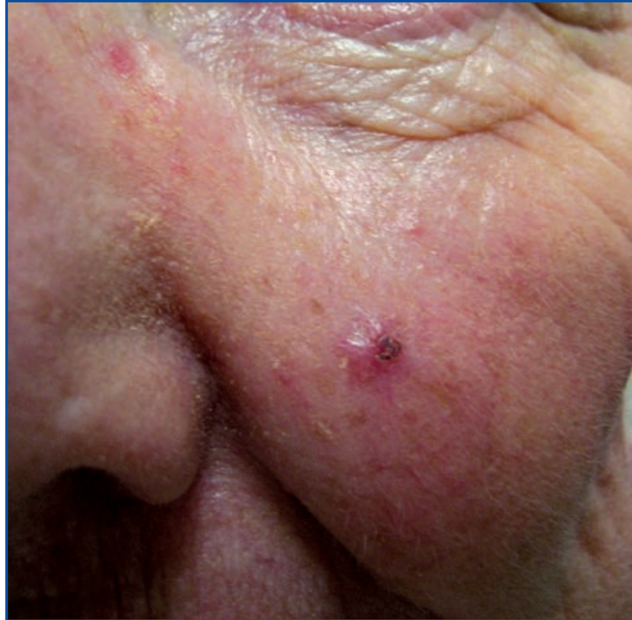
Answers

1. Clinically atypical or dysplastic nevi.
2. More melanomas arise *de novo*.
3. Education on the ABCDEs of melanoma and a handout to illustrate which pigmented lesions to watch out for. The patient should be encouraged to become familiar with his/her nevi and take photographs for comparison every three months to six months.

   Review by a dermatologist would be worthwhile. In light of the clinical appearance, her family history of melanoma and the inherent difficulty of following nevi on one's back, a biopsy of these nevi would be prudent.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 10: Betty's Bloody Bump



Betty, 63, presents with a papule on her cheek that seems to come and go and that occasionally bleeds.

Questions

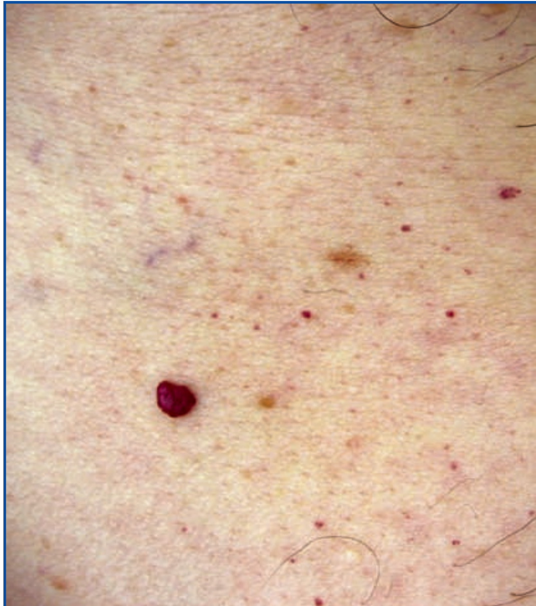
1. What is your diagnosis?
2. What are the different subsets of this lesion?
3. How would you manage this patient?

Answers

1. Basal cell carcinoma (BCC).
2. The different BCC subsets include:
   - pigmented,
   - superficial,
   - nodular,
   - cystic,
   - micronodular and
   - morpheaform.
3. Confirmation is achieved by biopsy. Upon confirmation, treatment is either by electrodessication and curettage, or excision. If the BCC is recurrent, large, or in a cosmetically-sensitive area, Mohs surgery is an appropriate treatment. Topical imiquimod can be tried for superficial BCCs, or in addition to surgical options, to reduce recurrence.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

Case 11: Paul's Purple Papules



Paul, 55, presents with reddish-purple asymptomatic papules that appear to be increasing in number on his trunk. Some have also increased in size. He had a renal transplant two years ago and he is on several immunosuppressant medications.

Questions

1. What is your diagnosis?
2. How common are these lesions?
3. How would you manage this patient?

Answers

1. Cherry hemangiomas.
2. They are the most common vascular proliferation in humans. They are increasingly common as a person ages and they appear in both genders and in all races.
3. Treatments that are used successfully include:
   - electrosurgery,
   - laser,
   - excision and
   - liquid nitrogen cryotherapy.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

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Case 12: Harry's Chest

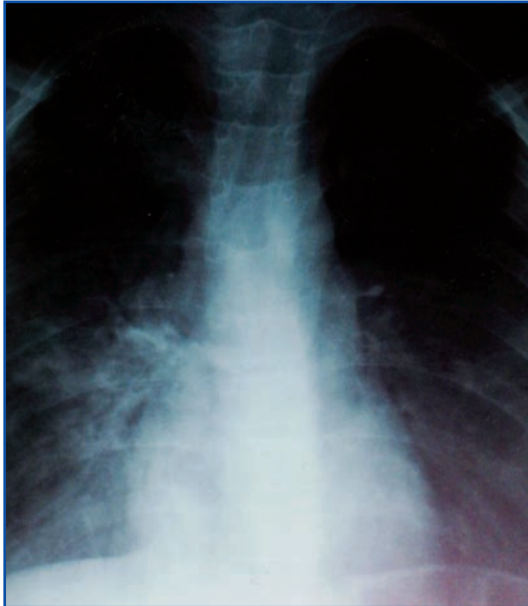


Figure 1. Anterior chest X-ray.

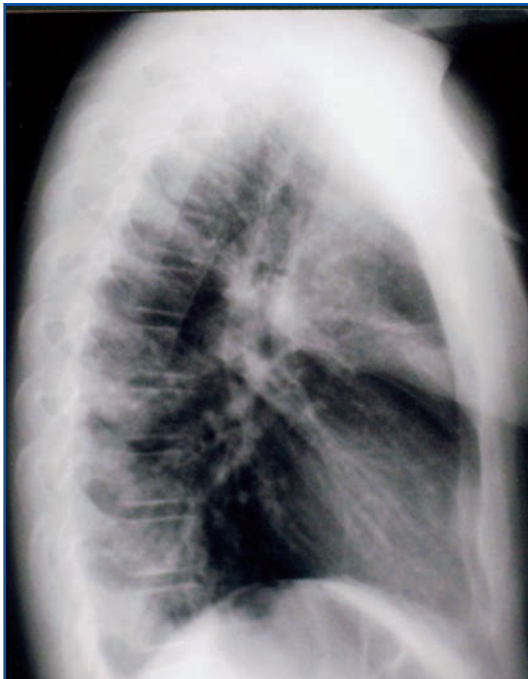


Figure 1. Lateral chest X-ray.

Harry, 11, presents with fever, cough and right-sided chest pain for two days. His temperature was 40 C, his heart rate was 86 bpm and his respiratory rate was 30 breaths per minute. There were scattered terminal inspiratory rales in the right lower chest. His leukocyte count was 18,000/mm^3 with 70% neutrophils. Radiographs of the chest were taken (Figure 1 and Figure 2).

Questions

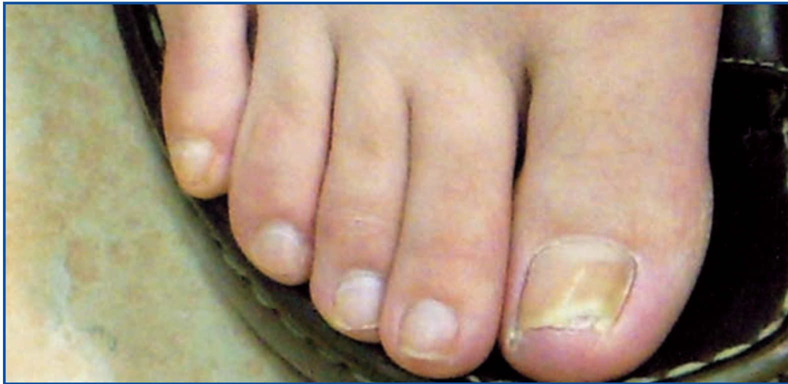
1. What is your diagnosis?
2. What is the treatment?

Answers

1. Right lower lobe pneumonia.
2. Treatment is based on the presumptive cause and the clinical appearance of the child. The most common bacterial cause is *Streptococcus pneumoniae* (pneumococcus). The empirical treatment for children who do not require hospital admission is oral penicillin or amoxicillin. For those children sick enough to be hospitalized, parenteral cefuroxime is indicated.

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

Case 13: Tula's Toenail



A 20-year-old female presents with a whitish discolouration of the right big toenail.

Questions

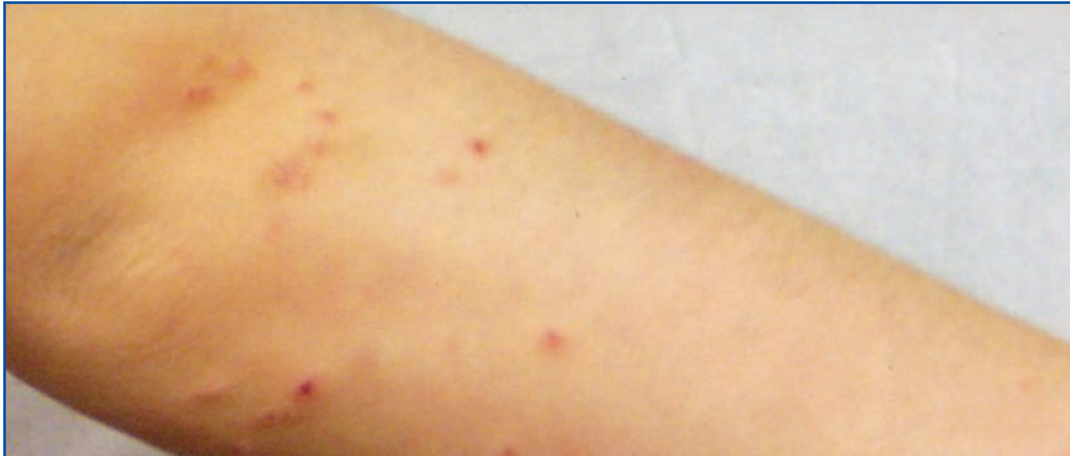
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Distal subungual onychomycosis (DSO).
2. DSO is usually due to infection with *Trichophyton rubrum* and occasionally, *Trichophyton mentagrophytes*. Other family members might be affected and there might be concomitant tinea pedis. The condition is uncommon before puberty. Thereafter, the prevalence increases with age.
3. Treatment consists of the administration of a systemic antifungal agent, such as terbinafine or itraconazole and optimal hygiene and care of the nails and feet. The nails should be trimmed regularly.

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

Case 14: Yves's Itchy Bumps



Yves, 10, presents with intensively itchy lesions on his right elbow, right forearm and in the webbed areas between the his right hand. The lesions consist of small erythematous papules, some of which are excoriated with fine linear burrows.

Questions

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

Answers

1. Scabies.
2. The etiologic agent is *Sarcoptes scabiei var. hominis*. Transmission occurs through close personal contact with an infected person. The lesions are extremely itchy and consist of erythematous papules and vesicles and linear burrows. The diagnosis can usually be established based on a typical history and examination and can be confirmed by microscopic identification of the mites, eggs, larvae or feces in a skin scraping.
3. The treatment of choice is permethrin 5% cream, which should be applied to the entire body before bed and then showered off in the morning. If necessary, the treatment can be repeated the following week. All household members should be treated regardless of whether symptoms are present. Clothing and bed linen should be laundered in hot water.

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

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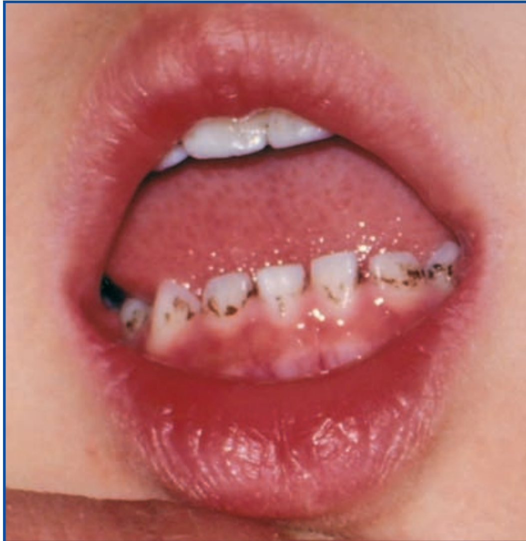
Case 15: Toby's Teeth Marks



A three-year-old boy was noted to have black stains on his teeth. Until a few months ago, the teeth looked normal.

Questions

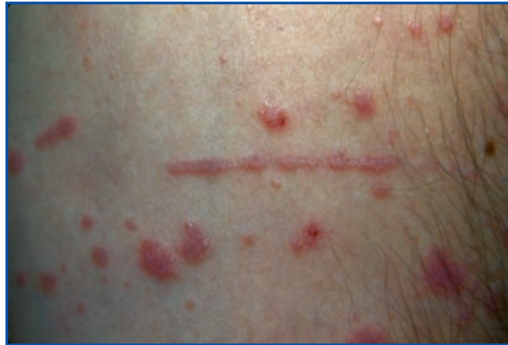
1. What are the possible causes?
2. What is the significance?
3. What is the treatment?

Answers

1. Common causes of staining of the teeth include ingestion of grape or raspberry juice, or a liquid iron preparation and not adequately rinsing the teeth afterwards. Staining of the teeth might also result from:
   - the use of chlorhexidine rinse,
   - maternal ingestion of tetracycline,
   - ingestion of tetracycline in infancy or childhood,
   - porphyria, or
   - severe neonatal hyperbilirubinemia.
2. Tooth stain is a cosmetic problem. Occasionally, the stain might be mistaken for caries.
3. No treatment is necessary, since the permanent dentition is usually not affected.

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

Case 16: Rita's Rash



Rita, 55, has developed an itchy rash on her trunk and extremities.

Questions

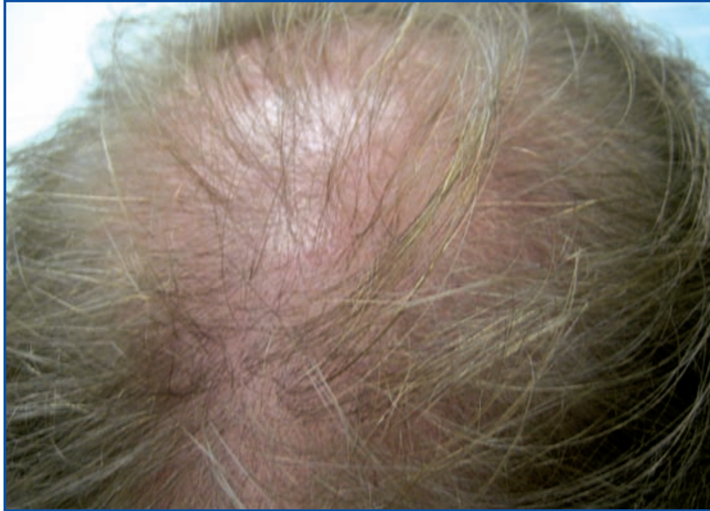
1. What is the diagnosis?
2. What are the "five P's" of this condition?
3. What is the name given to the linear area of involvement seen in the centre of the photo?

Answers

1. Lichen planus.
2. The five P's of this condition are: pruritic, purple, planar, polygonal papules.
3. Koebner phenomenon, which is the occurrence of lesions in areas of previous or recent trauma. Frequently seen in psoriasis, but described in a number of other conditions as well.

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

Case 17: Hy's Hair



Hy, 50, is bothered by his continued hair loss. Laboratory investigations revealed normal thyroid function and ferritin levels. He is on warfarin for cardiac disease, but is otherwise healthy and on no other medications.

Questions

1. What is your diagnosis?
2. Is this a common problem?
3. What are the treatment options?

Answers

1. Androgenetic alopecia (AGA).
2. AGA affects approximately 50% of men and while less common in premenopausal women, it is as common in women after menopause as in men.
3. Treatment options include:
   • oral finasteride,
   • topical minoxidil,
   • a combination of the above medicines,
   • hair transplant, or
   • hair prosthesis.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

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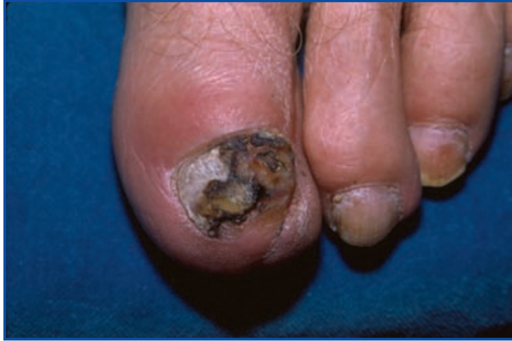
Case 18: Bob's Black Lesion



Bob, 75, has developed this blackish lesion over the last five years under his left big toenail.

Questions

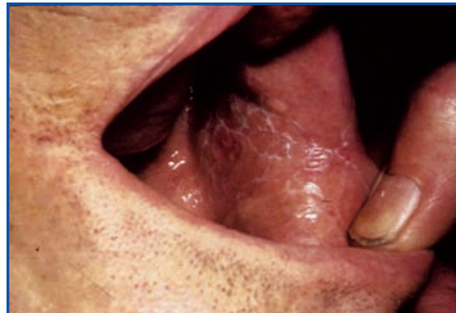
1. What is the diagnosis?
2. What is the differential diagnosis?
3. How would you confirm the diagnosis?

Answers

1. Subungal melanoma.
2. Mycotic nail infection and subungal hematoma.
3. Fungal scrapings for mycology and nail bed biopsy.

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

Case 19: Walter's White Patches



Walter, 65, has developed a generalized itchy eruption. On clinical examination, he was found to have these whitish patches on his mucous membranes.

Questions

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

Answers

1. Lichen planus.
2. If the condition is asymptomatic, no therapy is necessary. If it is associated with discomfort, topical steroids, such as triamcinolone in orabase, or fluocinonide gel, may be used for symptomatic relief.
3. The differential diagnosis would primarily include candidiasis and squamous cell carcinoma.

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

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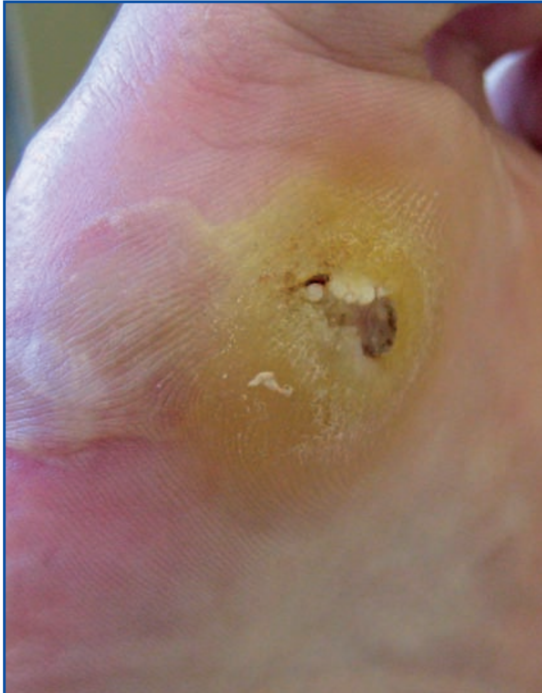
Case 20: Sam's Sore



Sam, a 45-year-old diabetic male, presents with a painful thickening on the bottom of his foot.

Questions

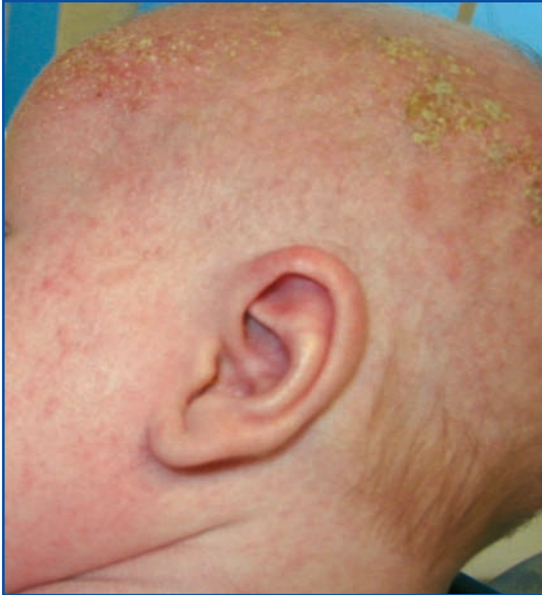
1. What is your diagnosis?
2. What are some predisposing factors for this condition?
3. How is this condition treated?

Answers

1. Callus.
2. Ill-fitting shoes, participation in sports, the presence of bony prominences, faulty foot function or structure.
3. The patient should soak the callus in warm, soapy water, use a pumice stone, apply a protective bandage to decrease friction and use moisturizing creams. Any sign of infection should be treated with topical or systemic antibiotics. The thickened, hardened area should be shaved off with a scalpel blade. Orthotics can often be beneficial, particularly in a patient with diabetes.

Provided by Dr. Benjamin Barankin, Toronto, Ontario.

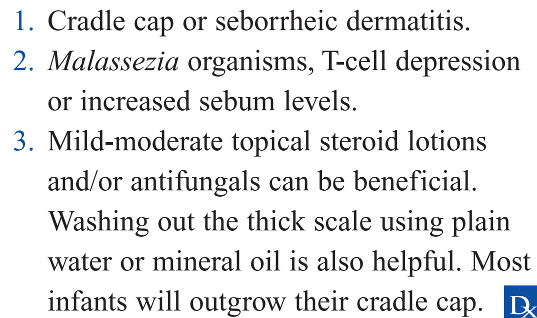
Case 21: Baby's Yellow Scales



A three-month-old male presents with mild erythema and yellow scaling on his scalp.

Questions

1. What is your diagnosis?
2. What is the etiopathogenesis of this condition?
3. What is the treatment?



Answers

1. Cradle cap or seborrheic dermatitis.
2. *Malassezia* organisms, T-cell depression or increased sebum levels.
3. Mild-moderate topical steroid lotions and/or antifungals can be beneficial. Washing out the thick scale using plain water or mineral oil is also helpful. Most infants will outgrow their cradle cap. Dx

Provided by Dr. Benjamin Barankin, Toronto, Ontario.