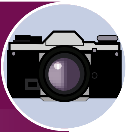
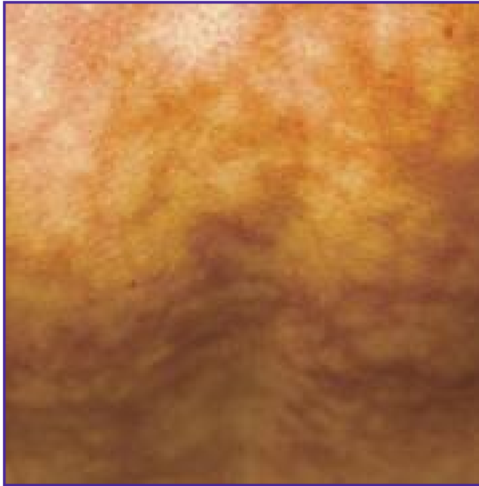
Photo Diagnosis



Illustrated quizzes on problems seen in everyday practice

Case 1: Robert's Rash



Robert, 44, presents with an asymptomatic rash on his back. Further questioning reveals that he works in construction and at the end of each day, he places a hot water bottle on his back to ease his aches and pains.

Questions

1. What is the diagnosis?
2. What is the cause?
3. How would you manage this patient?

Answers

1. Erythema ab igne.
2. The cause is due to the prolonged use of:
   - a space heater,
   - fireplace,
   - hot water bottle, or
   - other heat source.
3. Discontinue use of the hot water bottle and switch to other analgesics. If the rash does not sufficiently improve after one year, consider laser treatment.

Provided by: Dr. Benjamin Barankin

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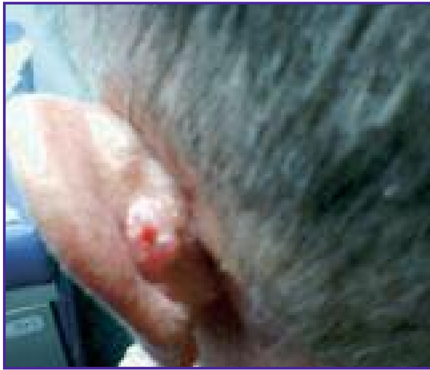
Case 2: Morty's Mole



Morty is a 58-year-old farmer. He comes to you with an expanding, non-healing, hyperkeratotic, ulcerated and pruritic papule/lesion on the back of his left ear, which has been present for the past year. His wife insisted that he go and get it checked out.

Questions

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

Answers

1. Basal cell carcinoma (BCC). BCC has five common presentations. In Morty's case, it is a pink, fleshy growth with a slightly elevated rolled border and a crusted indentation in the center (called nodular pattern).

   As the growth slowly enlarges, tiny blood vessels may develop on the surface.

   BCC is the most common form of cancer and skin cancer and is diagnosed by a simple biopsy. It is readily amenable to treatment if detected early. This cancer has an extremely low rate of metastasis.
2. Surgical excision, often followed by electrodesiccation and curettage of the base.

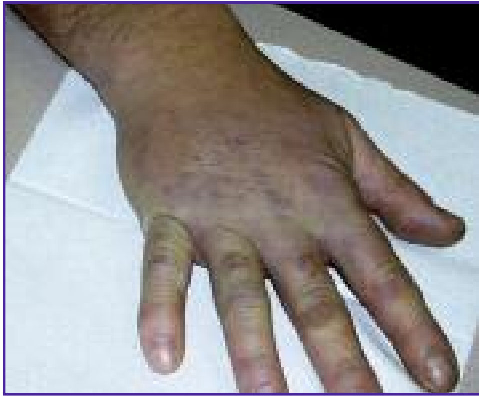
   Morty needs to exercise sun protection and be aware of the ABCDs of mole surveillance, which include:
   - Asymmetry
   - Border irregularity
   - Colour variegation
   - Diameter

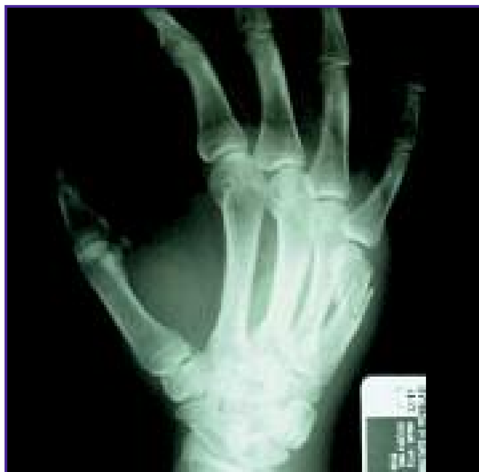
   He also needs to perform regular self skin examinations (and by a physician yearly) for ongoing monitoring.

The ABCDs of mole surveillance include: asymmetry, border irregularity, colour variegation and diameter.

Provided by: Dr. Katherine J. M. Abel

Case 3: Harrison's Hand





Harrison, 54, fell from a roof landing on his right hand. The hand is now swollen, bruised and very tender over the fifth metacarpal bone. A picture and an x-ray of his right hand are taken.

Questions

1. What does the x-ray show?
2. What is the management?

Answers

1. Comminuted fracture of the neck of the fifth metacarpal bone.
2. Apply a volar wrist and hand splint or ulnar gutter splint, elevate the limb and provide appropriate analgesia. A referral for orthopedic evaluation should be made in three to five days.

Provided by: Dr. Jerzy Pawlak

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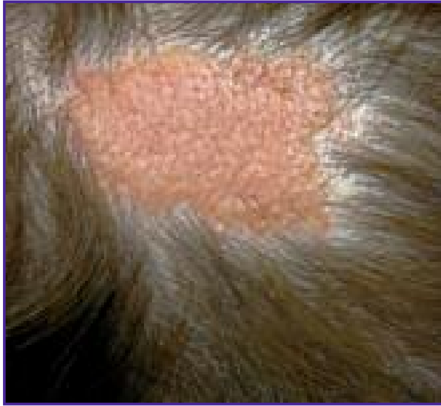
Case 4: Lennon's Lesion



These nevi occur in up to three in 1,000 live births and are the most common of the epidermal nevi.

Lennon, a young boy, was noted to have a lesion on his scalp at birth. The was no hair growth at the site of the lesion.

Questions

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

Answers

1. Nevus sebaceous of Jadassohn.
2. Nevus sebaceous of Jadassohn is a hamartoma composed of sebaceous glands, which usually appears at birth or within a few months of life, as a slightly raised, oval or linear lesion with a yellow or orange colour. These nevi are most common on the scalp and are usually devoid of hair. They can also be seen on the:
   - forehead,
   - neck and, less commonly,
   - on the trunk and extremities.

   These nevi occur in up to three in 1,000 live births and are the most common of the epidermal nevi.

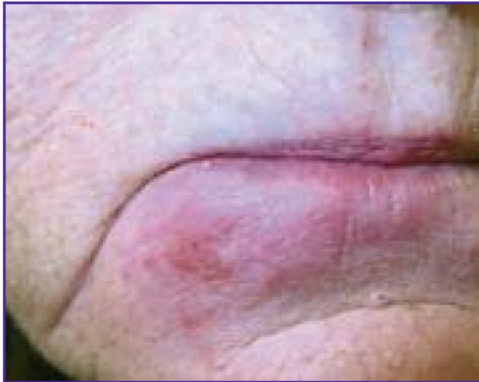
   The lesions often flatten and fade during the first few months of life due to loss of the effect of maternal hormones. During puberty the nevus again becomes raised, verrucous and yellow.
3. The following can develop after puberty and the risk is estimated to be 15% to 20%:
   - basal cell carcinoma,
   - squamous cell carcinoma, or
   - sebaceous carcinoma.

   Surgical excision, before puberty, is recommended.

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

Cont'd on page 56

Case 5: Lila's Lip



Lila, 54, presents with a thickening of her lower lip which she has had for several months. It is asymptomatic and she reports that she does not apply anything to the lips. On exam, there is a firmness and slight nodularity to the lower lip.

Questions

1. What is the diagnosis?
2. How would you treat this patient?
3. What is the name of the syndrome if she were to also have facial palsy and plicated tongue associated with the findings on her lip?

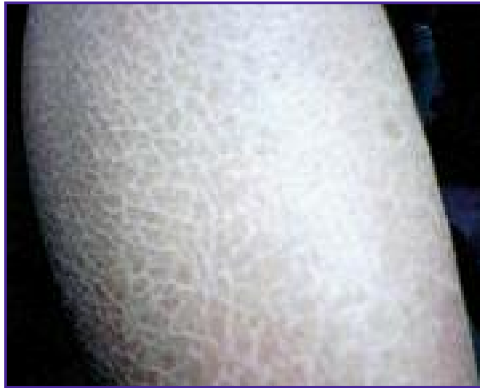
Answers

1. Granulomatous cheilitis. This is a chronic, benign, swelling of the lip due to granulomatous inflammation.
2. Intralesional triamcinolone acetonide, 2.5 mg/ml to 10 mg/ml.
3. Melkersson-Rosenthal syndrome is the term used when cheilitis occurs along with facial palsy and plicated tongue.

Provided by: Dr. Benjamin Barankin

Intralesional triamcinolone acetonide, 2.5 mg/ml to 10 mg/ml, is the treatment for this condition.

Case 6: Scout's Scales



Upon examination during a complete physical, Scout, 17, is noted to have very dry, scaly and patchy skin. He claims that his skin has always been like this for as long as he can remember. No medical attention was ever sought as there was a lack of symptoms.

Questions

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

Answers

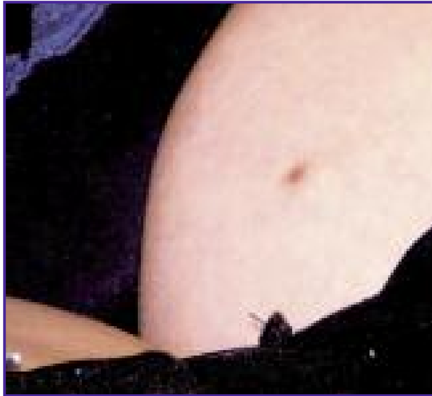
1. Ichthyosis. Ichthyosis (sometimes called fish-scales) is a rare genetic skin disorder. The skin builds up and scales, causing it to be sometimes extremely dry or itchy among other problems (*e.g.*, wax builds up in ear canals and there is a predisposition to strong body odour). Most types of ichthyosis are present at birth and are life-long. The condition can also interfere with the skin's critical roles in protecting against infection, preventing dehydration and regulating body temperature. Currently, there is no cure, only treatments to help with any symptoms. Most people (such as Scout) have ichthyosis vulgaris, the mildest form of the disease. It occurs in one out of every 250 people.
2. Scout is referred to a dermatologist for further evaluation and treatment. He is advised to copiously moisturize and use emollients while waiting for referral.

   The dermatologist prescribes hydrocortisone acetate-urea and hydrocortisone cream in glaxal base to be applied twice a day. Scout is told there is no cure for the condition, but these treatments could control the appearance somewhat and minimize any itch.

Provided by: Dr. Katherine J. M. Abel

Cont'd on page 60 →

Case 7: Louisa's Lump



Louisa, 19, is referred for the evaluation of a small and solitary lump on the right side of her abdomen. The lesion is attached to the overlying skin and is not itchy. There is no history of preceding trauma.

Questions

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

Answers

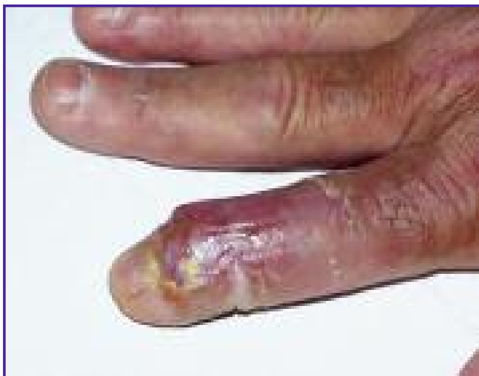
1. Pilomatricoma (calcifying epithelioma of Malherbe).
2. A pilomatricoma is a benign adnexal tumour and is derived from a primitive epidermal germ cell that was intended to differentiate into hair matrix cells. The lesion is caused by a mutation in ß–catenin. The condition usually presents in the first or second decade of life as a slow-growing, firm and deep nodule. Lesions are most common on the face and upper extremities, but can develop anywhere. Most cases are sporadic and solitary. There is a slight female preponderance.

   The nodule is located within either the dermis or the subcutaneous fat tissue and is attached to the skin. Stretching the overlying skin results in "tenting" of the surface and is referred to as the "tent sign." Some nodules calcify and feel hard. Multiple pilomatricomas can be associated with myotonic dystrophy, Gardner syndrome and Rubinstein-Taybi syndrome. The lesion is almost always benign; malignant transformation is rare, but has been described.
3. Pilomatricomas require surgical excision. Laser surgery might help minimize the scar.

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

Cont'd on page 62 →

Case 8: Isaac's Infection



Isaac, 54, presents with significant infection of the index finger. A bacteriology swab from the laceration showed the growth of *Pseudomonas aeruginosa* sensitive to ciprofloxacin. Therefore, he was treated with 500 mg of ciprofloxacin b.i.d. Three weeks later, an x-ray of Isaac's right index finger is taken.

Questions

1. What does the x-ray show?
2. What is the management in such a situation?

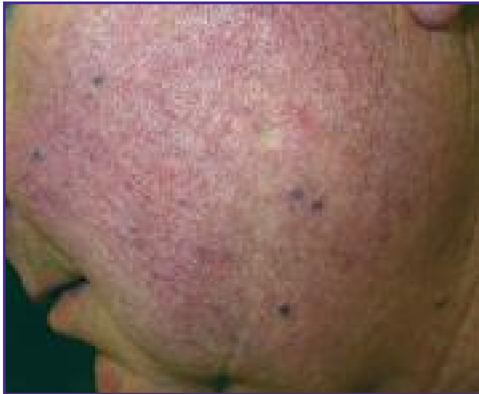
Answers

1. Bone resorption at both radial and ulnar aspect of the second middle phalanx, with a strong suggestion of ongoing radiographic findings of acute osteomyelitis.
2. Urgent consultation with a plastic surgeon.

Provided by: Dr. Jerzy Pawlak

There is a strong suggestion of ongoing radiographic findings of acute osteomyelitis.

Case 9: Potter's Papules



This condition is due to chronic sun exposure.

Potter, 68, presents to clinic because of multiple dark purple papules on his cheek that are partially blanchable. He has a similar lesion on his lip.

Questions

1. What is the diagnosis?
2. What is thought to be the greatest risk factor for these lesions?
3. What are the treatment options?

Answers

1. Venous lakes.
2. Chronic sun exposure.
3. Education and reassurance as to the benign nature of lesion. If treatment is requested, the following are quite effective:
   - laser,
   - electrocautery,
   - surgical excision, or
   - cryosurgery.

Provided by: Dr. Benjamin Barankin

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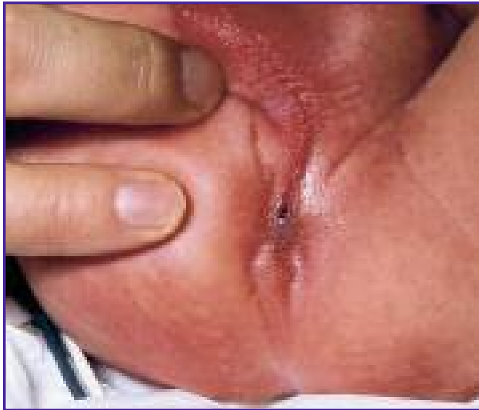
Case 10: Frank's Fistula



Frank, a neonate, was noted to have meconium passing from a perineal fistula.

Questions

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

Answers

1. Imperforate anus.
2. Imperforate anus results from an abnormal division of the cloaca into the urogenital and rectal portions during the fourth to sixth weeks of gestation. The condition can be broadly classified as low, intermediate or high according to whether the atresia is below, at the level of, or above the puborectalis sling of the levator ani.

   In this case, the presence of a perineal fistula signifies that the atresia is below the level of the puborectalis sling of the levator ani.

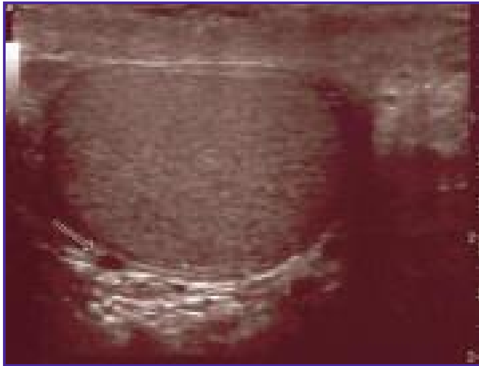
   Anal atresia may occur in isolation or as part of the VACTER syndrome (Vertebral, Anorectal, Cardiac, TracheoEsophageal and Radial abnormalities).
3. A low lesion with a perineal fistula requires that the fistula be opened and an anoplasty performed.

This condition results from an abnormal division of the cloaca into the urogenital and rectal portions during the fourth to sixth weeks of gestation.

Provided by: Dr. Alexander K. C. Leung; and Dr. Andrew L. Wong

Cont'd on page 66

Case 11: Trent's Testicle



Trent, 64, presents with a palpable lump on his right testicle. A diagnostic ultrasound was performed.

Questions

1. What does the ultrasound show?
2. What is the next step?

Answers

1. Right testicle cyst.
2. Possibilities for a scrotal mass includes:
   - cancer,
   - trauma,
   - epididymitis, or a
   - cyst (*e.g.*, hydroceles, spermatoceles or varicocele).

   The ultrasound is the appropriate test to take.

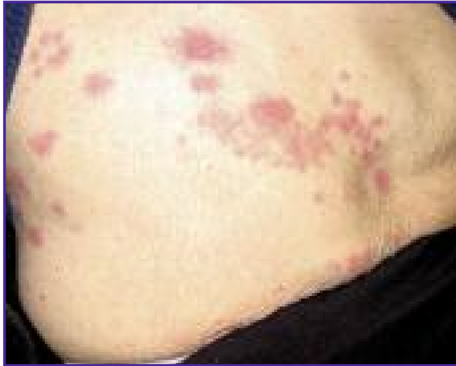
   If the scrotal mass is determined to be epididymitis, it can certainly be associated with a sexually transmitted disease (STD). Cysts such as varicoceles or hydroceles are not associated with STDs.

   As this cyst is found to be benign (*i.e.*, hydrocele), only a follow-up with a FP is recommended.

Provided by: Dr. Jerzy Pawlak

Possibilities for a scrotal mass includes cancer, trauma, epididymitis, or a cyst.

Case 12: Osanna's Outbreak

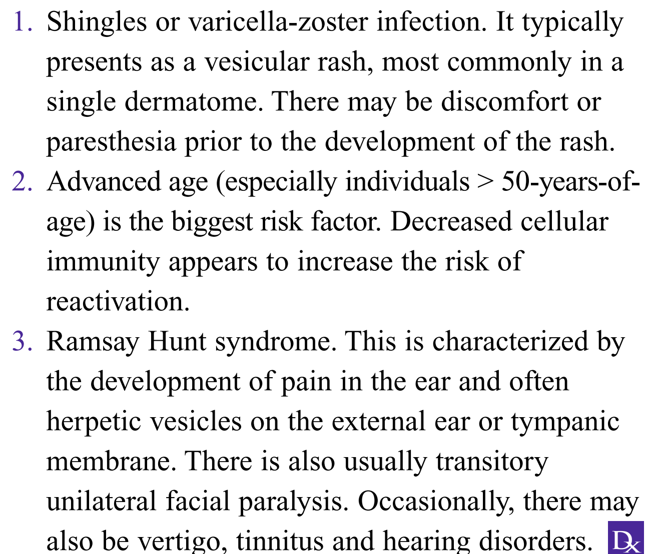


Osanna, 54, presents after developing pain and tingling on her abdomen, which was soon followed by the appearance of a rash. She was recently discharged from the hospital following a hysterectomy.

Questions

1. What is your diagnosis?
2. What is the biggest risk factor for postherpetic neuralgia and for pain persistence?
3. What is the name of the syndrome involving the facial and auditory nerves? This syndrome clinically presents as:
   - vesicles in or around the auditory canal,
   - hearing impairment,
   - nystagmus,
   - vertigo and/or
   - facial nerve palsy.

Advanced age (especially individuals > 50-years-of-age) is the biggest risk factor for this condition.



Answers

1. Shingles or varicella-zoster infection. It typically presents as a vesicular rash, most commonly in a single dermatome. There may be discomfort or paresthesia prior to the development of the rash.
2. Advanced age (especially individuals > 50-years-of-age) is the biggest risk factor. Decreased cellular immunity appears to increase the risk of reactivation.
3. Ramsay Hunt syndrome. This is characterized by the development of pain in the ear and often herpetic vesicles on the external ear or tympanic membrane. There is also usually transitory unilateral facial paralysis. Occasionally, there may also be vertigo, tinnitus and hearing disorders. Dx

Provided by: Dr. Benjamin Barankin