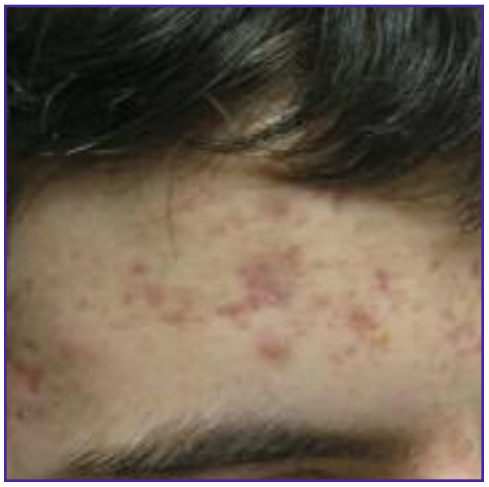
Case 1



Lesions on Forehead

A 16-year-old male presents with asymptomatic lesions on his forehead that are of cosmetic concern.

Questions

1. What is your diagnosis?
2. What are the different types of these lesions?
3. How would you manage this condition?

Answers

1. Acne scarring
2. Ice pick scars, rolled scars, boxed scars, hypertrophic scars and keloid scars
3. Managing any ongoing acne is critical. Once the acne is under control, various treatment options for acne scarring can be considered, depending on the type of acne scars. Treatment options include: chemical peels, microdermabrasion, subcision, fillers, intense pulse light and laser resurfacing.

Provided by: Dr. Benjamin Barankin

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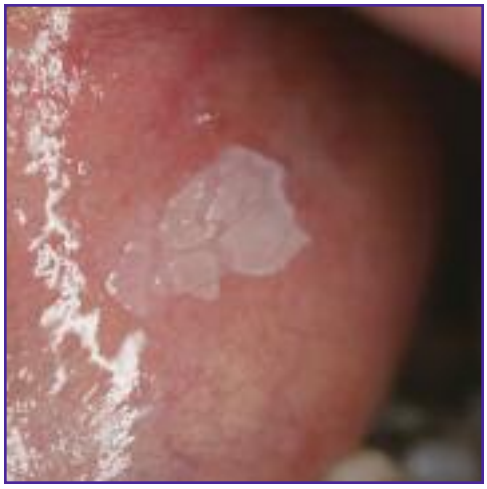
Case 2



White Plaque on Buccal Mucosa

A 55-year-old female presents with a white plaque measuring approximately 3 x 1 cm on the right buccal mucosa. The patient was previously a smoker, but quit 25 years ago.

Questions

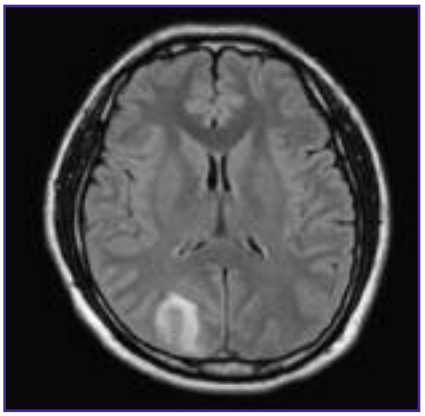
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. The patient has leukoplakia. Leukoplakia is a white patch or plaque on the lips or oral mucosa. It is most often caused by smoking, but can also be due to chronic irritation from misaligned teeth or dentures. Lesions commonly occur on the corners of the mouth and the buccal mucosa; however, smokers often present with lesions on the floor of the mouth.
2. Leukoplakia can progress to squamous cell carcinoma (SCC) in approximately 20% of cases. Almost 50% of oral SCC's are preceded by leukoplakia. Lesions of the floor of the mouth and ventral surface of the tongue are associated with the highest risk of cancer.
3. Although many lesions spontaneously regress with cessation of tobacco use, early recognition of SCC and biopsy of suspected cancerous lesions is critical in the management of leukoplakia. Excision is the preferred method of treatment if the SCC is confined to the mucosa. Long-term follow-up is recommended.

Provided by: Ms. Lesley Latham, and Dr. Richard Langley

Case 3



Brain Lesion

A 27-year-old, right-handed male presented with a gradual onset of headaches of several weeks duration, followed by multiple generalized seizures. The image is of a gadolinium-enhanced MRI.

Questions

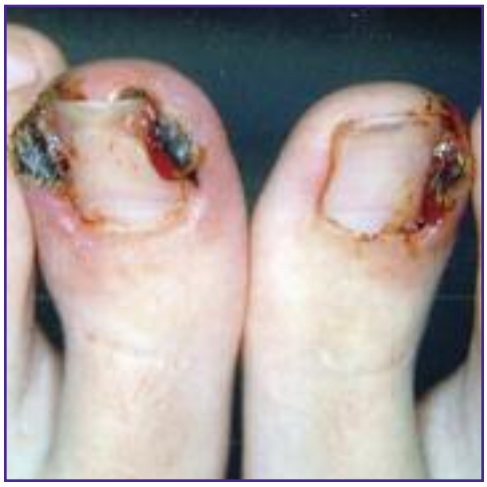
1. What does the image show?
2. What is your diagnosis?
3. What is the treatment?

Answers

1. The gadolinium-enhanced MRI shows an axial view of the brain, with a mass lesion in the right occipital lobe.
2. The final diagnosis was oligodendroglioma.
3. Neurosurgical and oncological consultation for chemotherapy and possible surgical resection.

Provided by: Dr. Abdul Qayyum Rana, Mr. Atif Khan, and Dr. A. N. Rana

Case 4



Pain in Big Toes

A 15-year-old boy presents with constant pain in both big toes.

Question

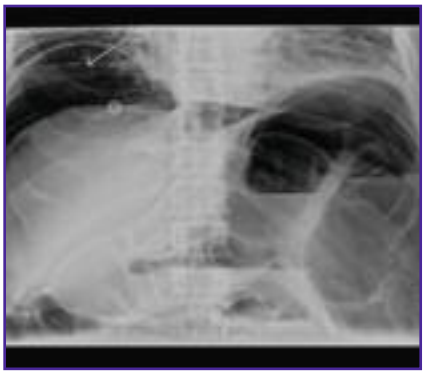
1. What is your diagnosis?
2. What are the causes?
3. What is the significance?
4. What is the treatment?

Answers

1. Bilateral, chronic ingrown infected nails of both big toes
2. Causes of ingrown toenails include: improper trimming of toenails, improperly sized footwear, nail conditions, trauma and heredity.
3. An ingrown toenail is a common disorder that most often affects the lateral edge of the big toe. However, the nail on any toe, or the nail on both sides of a toe, can become ingrown. The most common signs and symptoms are pain, redness and swelling at the corner of a toenail, and sometimes an infection.
4. Infection can be treated with topical or systemic antibiotics in the early stage of inflammation. Patients with recurrent ingrown nails may require lateral nail plate excision with matrixectomy.

Provided by: Mr. Pawel Utko, and Dr. Jerzy Pawlak

Case 5



Abdominal Pain

A 60-year-old man, post-op no. 21 of a low anterior resection for recurrent diverticulitis, presents with fever and abdominal pain of 24 hour duration. He also has ileus. An abdominal x-ray is done.

Questions

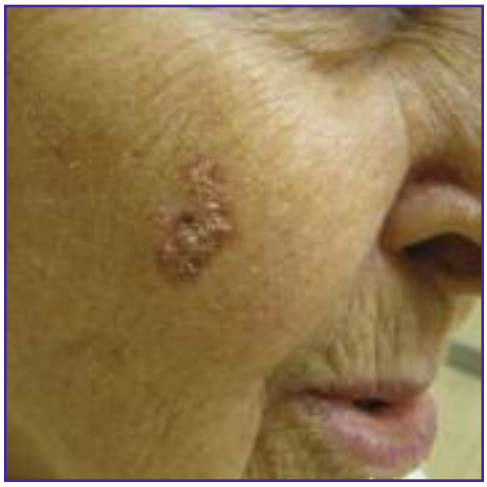
1. What is the diagnosis?
2. What is the treatment?

Answers

1. An enormous pneumoperitoneum. The abdominal CT shows a perforated cecum secondary to Ogylvie syndrome.
2. The patient needs a second operation to resect the perforation. Also, broad spectrum antibiotics are necessary, due to the fecal peritonitis associated with the perforation.

Provided by: Dr. Jean-François Roussy

Case 6



Scaly Plaque on Cheek

A 75-year-old female presents with a slowly growing, scaly plaque on her cheek of two years duration.

Questions

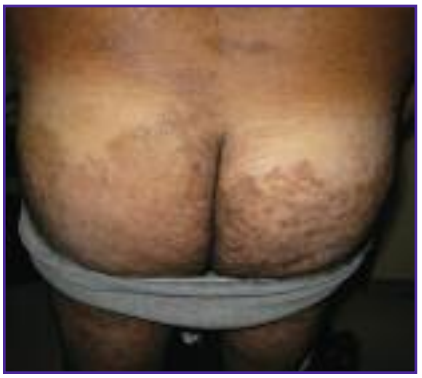
1. What is your diagnosis?
2. What is the concern with this lesion?
3. How might you treat this lesion?

Answers

1. Bowen's disease
2. Approximately five percent of incidences will turn into an invasive squamous cell carcinoma.
3. Surgical excision or electrodesiccation and curettage are good treatment options. Aggressive liquid nitrogen cryotherapy or radiation can be considered, as well as topical imiquimod or 5-fluorouracil. Mohs surgery is also an option.

Provided by: Dr. Benjamin Barankin

Case 7



Rash on Buttocks

A 42-year-old male presents with a scaly, itchy rash on his buttocks.

Questions

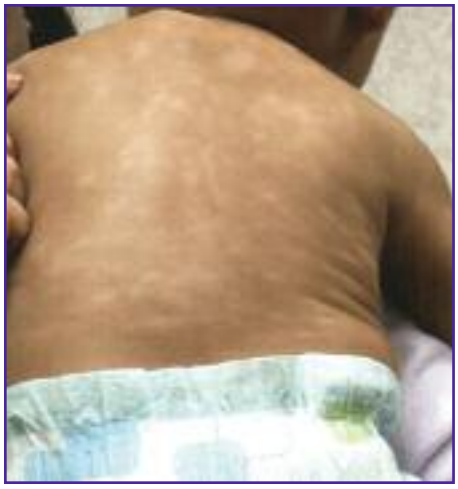
1. What is your diagnosis?
2. Which organism is most likely responsible?
3. How would you manage this patient?

Answers

1. Tinea corporis or tinea cruris
2. The dermatophyte *Trichophyton rubrum*
3. Topical antifungals such as ketoconazole, ciclopirox olamine or terbinafine are effective for localized disease when used for two to four weeks. Oral antifungals may be required for more extensive involvement, or where hair follicles are involved.

Provided by: Dr. Benjamin Barankin

Case 8



Hypopigmentation of the Skin

A 10-month-old infant presents with hypopigmentation of the skin following topical application of a cream for the treatment of an itchy skin condition.

Questions

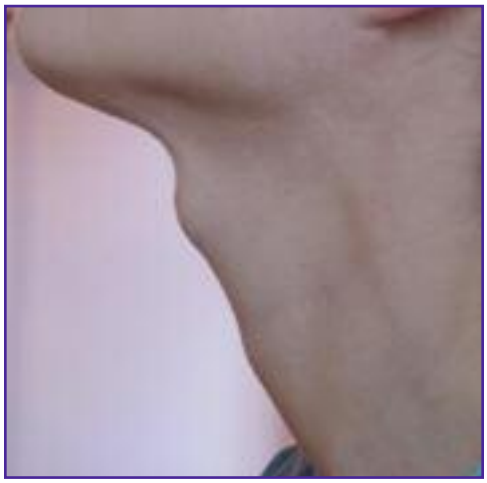
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Hypopigmentation of the skin from topical application of corticosteroid.
2. Topical corticosteroids may cause skin atrophy and hypopigmentation. Other local adverse effects include striae, telangiectasia, decreased subcutaneous adipose tissue, rosacea, perioral dermatitis, folliculitis and steroid acne. Systemic side effects, although rare, include Cushing syndrome, adrenal suppression, cataracts, glaucoma, and growth retardation.
3. No treatment is necessary. The skin colour will usually return to normal weeks to months after topical corticosteroid therapy has been discontinued. Topical corticosteroids should be used only when necessary; in general, the least potent corticosteroid that can control the symptom should be used. Topical corticosteroids should not be applied more than twice a day, as frequent use does not improve efficacy and increases the risk of side effects.

Provided by: Dr. Alexander K. C. Leung, and Dr. Justine H. S. Fong

Case 9



Painless Lump in Neck

A 28-year-old woman presents with a painless lump in her neck. Examination shows a smooth, non-tender 2.5 cm mass in the midline of the anterior neck, at the level of the hyoid bone. The mass moves upon swallowing and protrusion of the tongue.

Questions

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

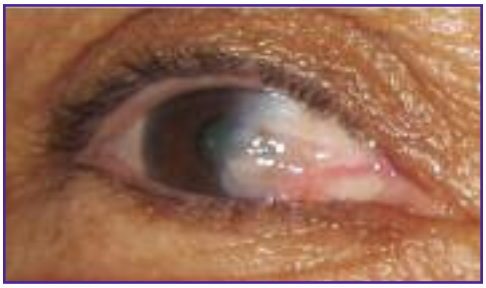
Answers

1. Thyroglossal duct cyst.
2. The thyroid anlage arises from the foregut diverticulum at the site of the future foramen cecum, at about the third week of gestation. As the neck develops, the thyroid gland descends along the midline of the neck; during descent, it remains connected to the foramen cecum by the thyroglossal duct. A cyst results when the thyroglossal duct fails to involute after the descent of the thyroid gland. The condition can be differentiated from other neck masses by its midline position and its upward movement upon protrusion of the tongue. Recurrent infections are common if the lesion is not excised. Rarely, a thyroglossal duct cyst can cause extrinsic airway compression or intralaryngeal extension, with resultant dyspnea or hoarseness. A thyroglossal duct cyst also has the potential for malignant transformation.
3. The Sistrunk procedure is the surgical treatment of choice. The operation consists of excising the cyst, the thyroglossal tract, and the central portion of the hyoid bone.

Provided by: Dr. Patrick Lai, Mr. Michael Lai, and Dr. Alexander K. C. Leung

Case 10

Eye Lesion



A 59-year-old woman presents with a multi-year history of a growth on the right eye that causes blurry vision.

Questions

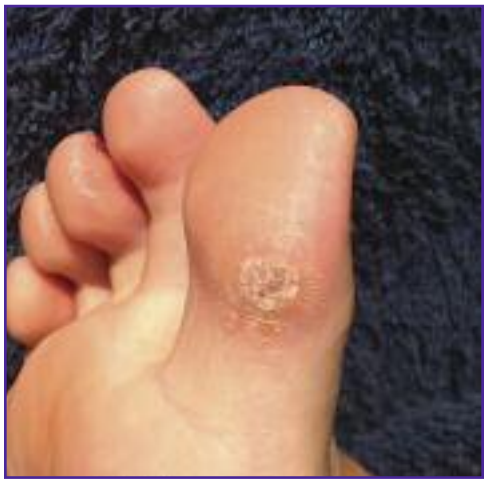
1. What is the diagnosis?
2. What are the risk factors of development and progression?
3. What is the appropriate management?

Answers

1. Pterygium
2. Exposure to ultraviolet-B light (UVB) is the most important risk factor in the development of pterygium. Dry eye syndrome and chronic ocular surface inflammation are also contributing factors.
3. Use of UVB blocking sunglasses and topical lubrication with artificial tear drops can help limit the progression of pterygium. For large lesions that affect vision (either by inducing astigmatism or occluding the visual axis), surgical removal can be undertaken.

Provided by: Mr. Sean A. Kennedy, Mr. Sean O'Brien, and Dr. Jason Noble

Case 11



Rough, Tender Foot Plaque

A 14-year-old boy presents with a rough, tender plaque on the bottom of his foot. He has noted that the lesion has increased in size, and is painful while wakeboarding and running.

Questions

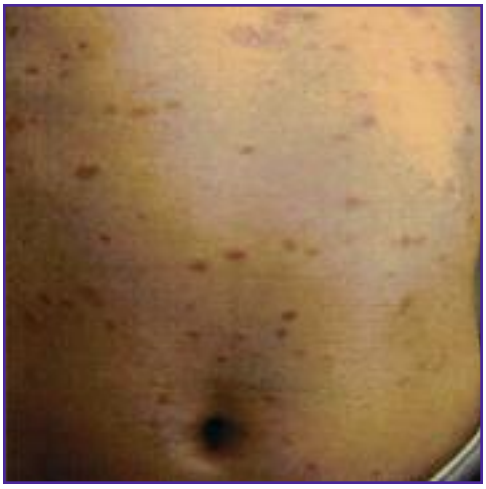
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

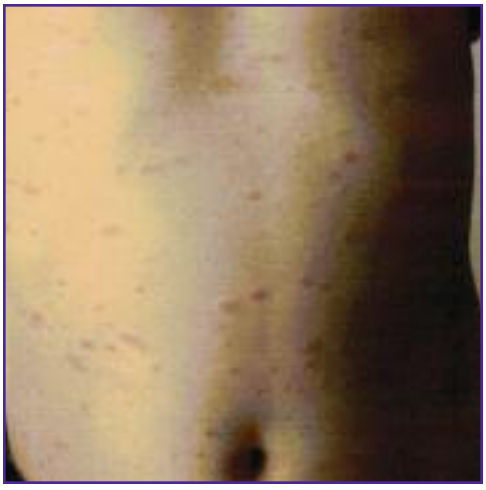
Answers

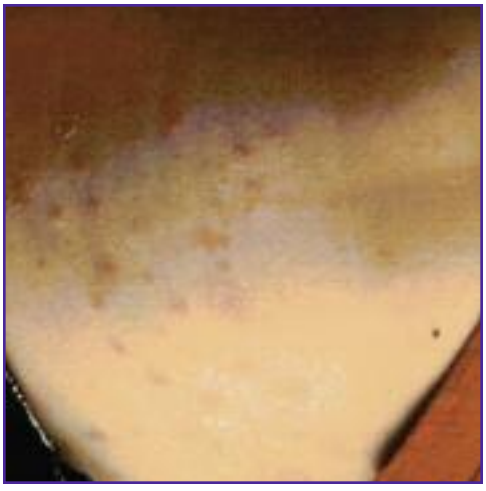
1. Plantar wart. This condition is caused by the papillomavirus (HPV), affecting the plantar surface of the foot. It may be differentiated from calluses by careful inspection and gentle paring of the lesion, which in plantar warts reveals hemmorragic puncta and loss of dermatoglyphs.
2. Plantar warts can cause pain, tenderness or irritation when walking. They are contagious, and are transmitted by direct contact. Human papillomaviruses are a large group (approximately 100 types) of DNA viruses that can infect epithelia of the skin and mucosa. Genital HPV is a highly prevalent sexually transmitted disease. Patients with immunodeficiencies are at higher risk of persistent and progressive disease.
3. Plantar warts are seldom a diagnostic challenge, but may be difficult to treat. A conservative or expectant course is reasonable, as plantar warts may spontaneously resolve. If the warts persist, or a patient requests treatment, the following options may be considered: destructive treatment, including topical kerolytics (*e.g.*, salicylic acid), cryotherapy or laser; cytotoxic treatment, including podophyllotoxin; and immunomodulatory treatment, including imiquimod 5% cream.

Provided by: Ms. Mary Langley, and Dr. Richard Langley

Case 12







Salmon-Coloured Rash on Trunk

A 12-year-old male has a three week history of salmon-coloured macules, with a collarette scale, scattered on the trunk. The lesions appeared approximately 10 days after he suffered from an upper respiratory tract infection. The rash is mildly pruritic.

Questions

1. What is the diagnosis?
2. What is the cause of the condition?
3. What is the management?

Answers

1. Pityriasis rosea
2. This condition may represent a reactive response to viruses such as human herpes viruses 6 and 7. Pityriasis rosea has often been considered to be a viral exanthem.
3. Reassurance is essential, since pityriasis rosea resolves spontaneously within six to twelve weeks. Topical corticosteroids may be used for relief of pruritus. Dx

Provided by: Dr. Francesca Cheung

Umbilical Granuloma

Reader's Response

Thank you for this complimentary issue [Volume 27, Number 7]. I enjoyed the easy read. However the Photo Diagnosis "Velvety Mass in Umbilical Area" misses important diagnostic information and the optimal treatment:

1. The granuloma is typically pedunculated on a very thin stalk.
2. Since the granuloma lacks sensory nerves, a painless, outpatient clinic procedure easily applies an absorbable 4-0 ligature to the stalk, just distal to its origin from the umbilicus. This results in auto-amputation of the granuloma and cure. Following placement of the ligature, auto-amputation occurs within 36 hours. During this period, cleaning the umbilicus as is usual in the newborn period is sufficient. It is advisable that the practitioner has witnessed this procedure being performed before he does it without assistance.
3. The pathology is that of a pyogenic granuloma.

Submitted by: Dr. Steven Rubin, Pediatric Surgeon

Author's Reply

We would like to thank Dr. Rubin for his interest in our photo quiz titled "Velvety Mass in Umbilical Area", published in the July 2010 issue of the Journal.[1] An umbilical granuloma forms from excess granulation tissue persisting at the base of the umbilical area after separation of the umbilical cord. Formation of granulation tissue is normal in the stage of wound healing. However, granulation tissue may overgrow and result in the formation of an umbilical granuloma. An umbilical granuloma can be sessile or pedunculated. Typically, an umbilical granuloma presents as a cherry red sessile papule or a pedunculated mass with a soft, velvety appearance.

The most common treatment is topical application of a 75% silver nitrate stick, or silver nitrate solution. Silver nitrate acts as an antiseptic, astringent and caustic agent.[2] Application of silver nitrate to the granuloma triggers cauterization.[2] The procedure is simple and can be easily performed in a physician's office. Ligation of the stalk just distal to its origin from the umbilicus as suggested by Dr. Ruben is definitely a treatment option. However, most umbilical granulomas are deeply situated, which may render ligation of the granuloma at its base difficult. The double-ligature technique as described by Lotan, *et al* would overcome the technical difficulty.[3] The first stage of the double-ligature procedure involves placing a superficial "stay" ligature, which brings the umbilical granuloma into a position more easily accessible. The second stage involves placing a deeper and more precise ligature at the base of the lesion.[3] Contraindications to ligation of an umbilical granuloma include a large sessile lesion with a wide base, a small deep lesion, and a very friable lesion which is likely to bleed during the procedure.[3]

Finally, the term "pyogenic granuloma" is a misomer as the condition is not pyogenic. The lesion consists of granulation tissue with fibroblasts and abundant capillaries.[2] Hence, the term "umbilical granuloma" is preferred.

Answered by: Dr. Alexander K. C. Leung, MBBS, FRCPC, FRCP(UK&Irel),FRCPCH, FAAP, Clinical Professor of Pediatrics, University of Calgary; and Andrew S Wong, BSc

References
1. Leung AK, Wong AS. Velvety Mass in Umbilical Area. Can J Diagn 2010;22(7):43.
2. Nager H. Umbilical Granuloma: A New Approach to an Old Problem. Pediatr Surg Int 2001;17:513-514.
3. Lotan G, Klin B, Efrati Y. Double-ligature: A Treatment for Pedunculated Umbilical Granulomas in Children. Am Fam Physician 2002;65:2067-2068.