Illustrated quizzes on problems seen in everyday practice

Case 1

Lump in Neck

A 32-year-old woman comes to the hospital with anxiety, palpitations, fatigue and diarrhea. The lab results show TSH < 0.01, a free T4 of 110 and a free T3 of 31. We also note a lump in her neck.

Questions

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

Answers

1. Hyperthyroidism, with the presence of an important goiter. Graves disease is the most probable cause of the goiter.
2. First, the adrenergic symptoms must be treated rapidly with ß-blockers. The hyperthyroidism should be treated with methimazole or propylthiouracil, but the more definitive treatment is radioactive iodine.

Provided by: Dr. Jean-François Roussy

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The Canadian Journal of Diagnosis
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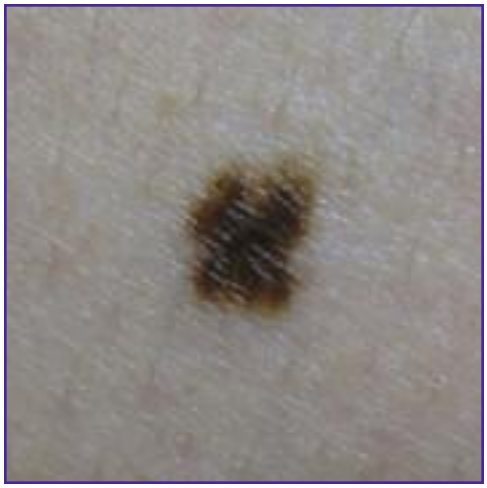
Case 2



Dark Mole on Back

A 29-year-old male presents with a dark mole on his back of unknown duration.

Questions

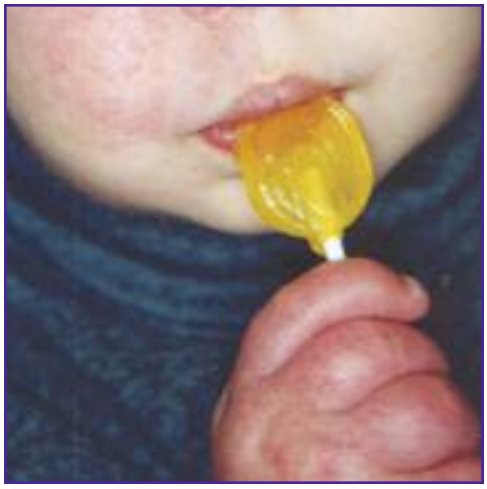
1. What is your diagnosis?
2. What are the general features to look for to make this diagnosis?
3. How would you manage this patient?

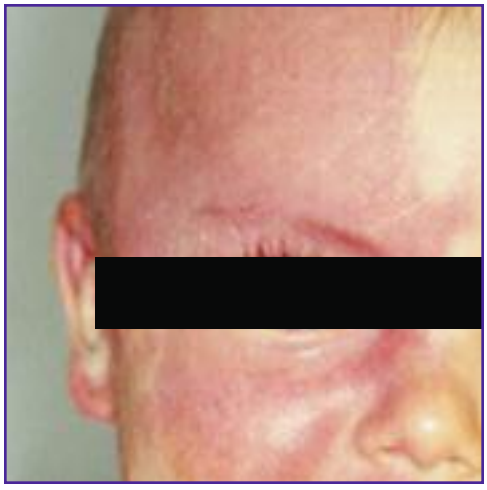
Answers

1. Dysplastic nevus
2. ABCDEs: asymmetry; border irregularity or variegation; colours (black, multiple); diameter greater than 6 mm; and evolution/change of the nevus.
3. A biopsy should be considered, since melanoma would be in the differential.

Provided by: Dr. Benjamin Barankin

Case 3





Purple Lesions on Face

A four-year-old boy presents with an earache in his right ear. The right side of his face and right hand are covered by purple lesions with a relatively smooth surface. His mother claims that the lesions have been present since birth.

Questions

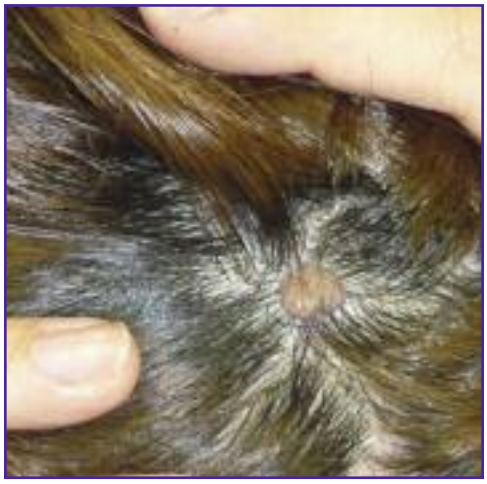
1. What is your diagnosis?
2. What is the significance?

Answers

1. Nevus flammeus (port-wine stains)
2. Most lesions represent developmental malformations and do not appear to be genetically determined. These nevi are usually unilateral and frequently occur on the face, but may also appear elsewhere. Size remains stable throughout life. Nevus flammeus appears at birth as flat, irregular, red-to-purple patches. Initially the lesion is smooth, but later it may become papular and similar to a cobble-stone surface. The entire depth of the dermis contains numerous dilated vessels. Nevus flammeus may be a component of neurocutaneous syndromes, such as Sturge-Weber syndrome (nevus flammeus of the trigeminal area) or Klippel-Trenaunay-Weber syndrome, if it occurs over the midline of the back; this syndrome may be associated with underlying arteriovenous malformation of the spinal cord. Sturge-Weber syndrome is a nonfamilial congenital disorder of facial and cerebral blood vessels. It is characterized by an angiomatous malformation on the face (port-wine stain), epilepsy and mental deficiency. The port-wine stain is irregularly shaped with red or violaceous haemangioma, and usually involves the area supplied by the first and second divisions of the trigeminal nerve. There may be angioma of the occipital and parietal leptomeninges on the side of the facial lesion. The underlying cerebral cortex is atrophic, and contains deposits of iron and calcium, which are responsible for the characteristic tramline appearance on a CT of the brain. The patient may have one of the other congenital abnormalities usually associated with this condition (*e.g.*, glaucoma, strabismus, optic atrophy, *etc*).

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

Case 4



Scalp Mass

A 15-year-old girl presents with a mass on the scalp, which her mother noted a few years ago. The lesion is soft and light brown in color. Rarely, it bleeds when hair is combed.

Questions

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

Answers

1. Congenital melanocytic nevus
2. Congenital melanocytic nevi refer to melanocytic nevi present either at birth, or within the first few weeks of life. The incidence ranges from 1 to 2% for any size of congenital melanocytic nevi, to around 1 in 20,000 for giant ones. The majority of congenital melanocytic nevi are intradermal or compound in nature. The colour varies from light to dark brown. The majority of the lesions are palpable, but reasonably flat at birth. In this case, the lesion has gone unnoticed for many years, as it is obscured by hair. With time, congenital melanocytic nevi tend to become more elevated, and coarse dark hair growing from the nevus may become prominent. Congenital melanocytic nevi may be cosmetically disfiguring. Erosions or ulcerations may occur, especially in giant congenital melanocytic nevi. Congenital melanocytic nevi also predispose affected patients to the development of melanoma.
3. The “watch and wait” approach is usually adopted for small and medium-sized congenital melanocytic nevi. When deciding whether or not to excise the lesion, cosmetic and psychosocial issues, the potential for malignant transformation, ease of clinical follow-up, complexity of removal, risk of surgery, and functional outcome must be considered. The management must be individualized for each patient.

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

Case 5

Papule on Eyelid

This 45-year-old female presents with a translucent, fluid-filled lesion on the upper eyelid.

Questions

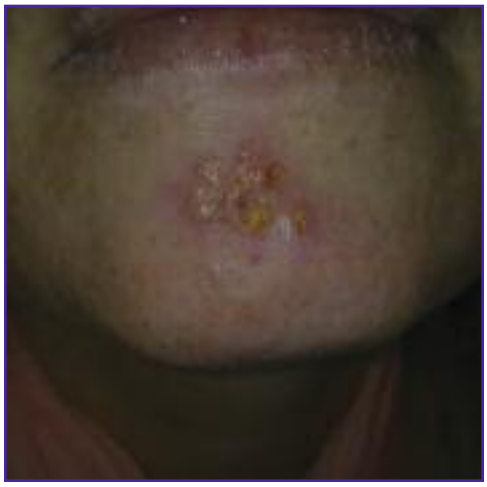
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. This patient has a Moll's gland cyst (apocrine hidrocystoma). Apocrine hidrocystomas are common, benign lesions usually presenting as solitary, skin-colored, reddish or blue cysts, on the inner or outer canthus of the eyelid. The size of the cyst can vary from a few millimeters to several centimeters.
2. Lesions are usually asymptomatic and vision is not affected. Cysts are thought to be caused by occlusion of the apocrine gland of Moll, and can be differentiated from eccrine hidrocystomas by histological examination.
3. Treatment is not required, however, follow-up is recommended. Surgical excision may be recommended as the treatment of choice for solitary lesions. Lesions seldom recur after removal.

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

Case 6



Recurrent Vesicular Chin Lesions

A 44-year-old female has recurrent grouped vesicles on an erythematous base. They tend to appear on the chin at least once a year, and disappear within one to two weeks.

Questions

1. What is your diagnosis?
2. What is the pathogenesis of the condition?
3. What are the triggers of recurrent attacks?
4. What is the management?

Answers

1. Recurrent herpes simplex virus (HSV) infection
2. Contact between a susceptible individual and a person who actively sheds the virus is required for HSV infection. HSV travels from the initial site of infection to the sensory dorsal root ganglion, where latency is established. Recurrent clinical outbreaks are due to viral replication in the sensory ganglia.
3. Trauma to the affected area, other infections such as upper respiratory tract infections, surgeries such as operations performed on the face or dental surgery, ultraviolet radiation, extremes in temperature, emotional stress, immunosuppression, and hormonal fluctuations can all act as triggers.
4. Most HSV infections are self-limited. Topical or oral antiviral medications shorten the course of the symptoms, and may prevent dissemination and transmission. Oral therapy may also be given as chronic suppressive therapy. Dx

Provided by: Dr. Francesca Cheung