Illustrated quizzes on problems seen in everyday practice

Case 1

Painful Ears

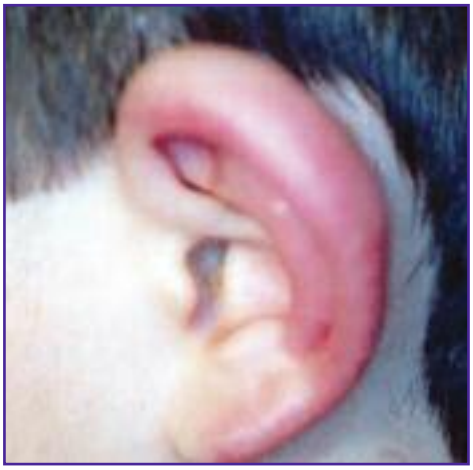

Figure 1. Pain in both ears.

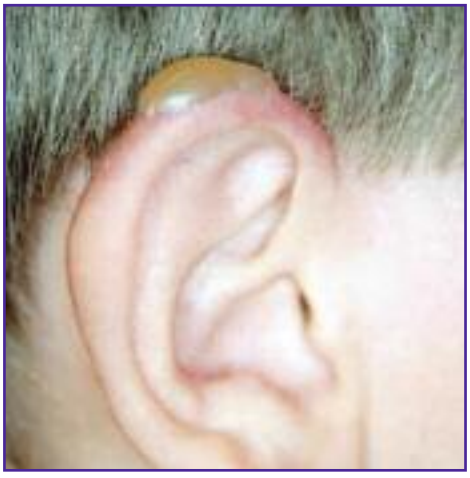

Figure 2. Blister on the right ear.

An 11-year-old boy (Figure 1) complains of pain in both ears. He had been outdoors for one hour with his friends the day before. The temperature on that particular day was -24ºC. Figure 2 shows another boy who had been outdoors for 50 minutes with the boy in Figure 1 and after he developed a blister on his right ear two days later.

Questions

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

Answers

1. Frostbitten ears.
2. Frostbite presents initially as stinging or aching of the skin which progresses to cold, numb, hard, white areas. After thawing, the site is painful, swollen and erythematous. If the damage is severe enough, this condition may progress to blistering and then, if the arterial circulation is compromised, it may progress to bluish discolouration.

Provided by: Dr. Jerzy Pawlak

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Case 2

A Cystic Mass

A 16-year-old boy presented with a cystic mass on the right side of the scrotum. The mass was painless and did not fluctuate in size. There was no history of trauma.

Questions

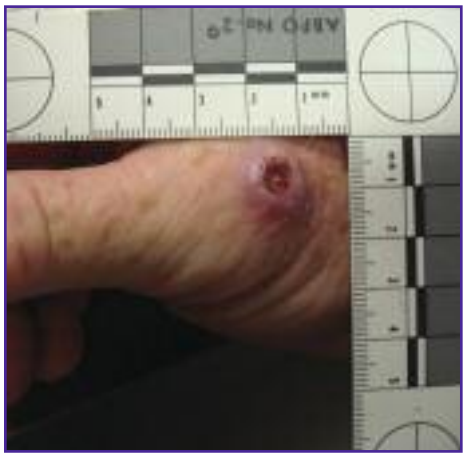
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Hydrocele (non-communicating).
2. A hydrocele results from a failure of fusion of the processus vaginalis with accumulation of fluid inside the processus vaginalis. The collection of fluid may exist in the scrotum (scrotal hydrocele), only in the inguinal region (hydrocele of the spermatic cord or hydrocele of the canal of Nuck), or extend from the scrotum through the inguinal canal into the abdomen (abdominoscrotal hydrocele). The scrotal hydrocele is by far the most common entity. The condition is more common in males than females. A scrotal hydrocele often presents in the male as an asymptomatic, cystic mass in the scrotum that transilluminates brightly. A hydrocele can be communicating or non-communicating.
3. Most non-communicating scrotal hydroceles will disappear by the end of the first year of life and surgery can be avoided within the first two years of life unless a hernia cannot be excluded. A communicating scrotal hydrocele may need to be operated earlier. A high ligation of the patent processus vaginalis should be performed and the fluid in the sac should be emptied. The treatment of a hydrocele of the spermatic cord or hydrocele of the canal of Nuck is complete surgical excision. Dissection to the internal inguinal ring and ligation of the neck of the processus vaginalis should be performed as there is a high association of inguinal hernia. Treatment of an abdominoscrotal hydrocele consists of complete excision of all components of the hydrocele sac to prevent recurrence.

Provided by: Dr. Alexander K. C. Leung; and Dr. Alexander G. Leong

Case 3



Rapidly Growing Tumour

A 55-year-old male presents with a rapidly growing tumour on the base of his thumb. He stated that it started as a small lesion that rapidly increased in size over the last four weeks.

Questions

1. What is the diagnosis?
2. How should this be treated?
3. How should the patient be followed-up?

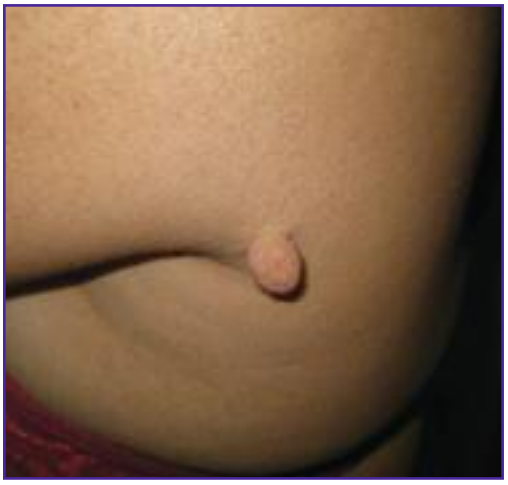
Answers

1. Keratoacanthoma.
2. There are various treatment options available for these types of lesions:
   - Surgery: electrodesiccation and curettage or blunt dissection is efficient and effective for smaller lesions. Excision should be considered for large tumours
   - Topical treatments: 5 fluorouracil, imiquimod, podophyllum resin
   - Intralesional injections: interferon α-2A, methotrexate
3. Patients who develop this type of skin lesion, or non-melanoma skin cancer, such as squamous cell carcinoma, Bowen's disease or basal cell carcinoma, are at high risk for developing subsequent skin cancer.

   Education, periodic follow-up examinations and early detection of possible skin cancers should be done.

Provided by: Dr. Werner Oberholzer

Case 4



Large, Asymptomatic Papule

A 46-year-old overweight female presents with a large, asymptomatic papule on her posterior axilla.

Questions

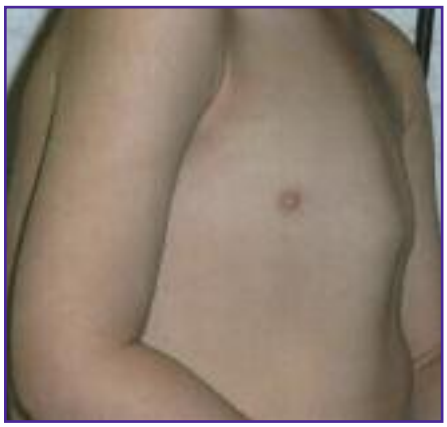
1. What is your diagnosis?
2. What is the cause of this condition?
3. How would you manage this person?

Answers

1. Nevus lipomatosus superficialis (often mistaken for a skin tag/acrochordon), a benign lipomatous hamartomatous lesion, possibly of nevoid origin.
2. It is due to ectopic adipose tissue in the dermis and can become quite large.
3. Reassurance as to benign nature. Excision for cosmesis is often requested.

Provided by: Dr. Benjamin Barankin

Case 5



Chest Protrusion

A 12-year-old boy presents with an anterior protrusion in the chest wall. The deformity was first noted when the child was four-years-old. The deformity progressively increases as the child grows.

Questions

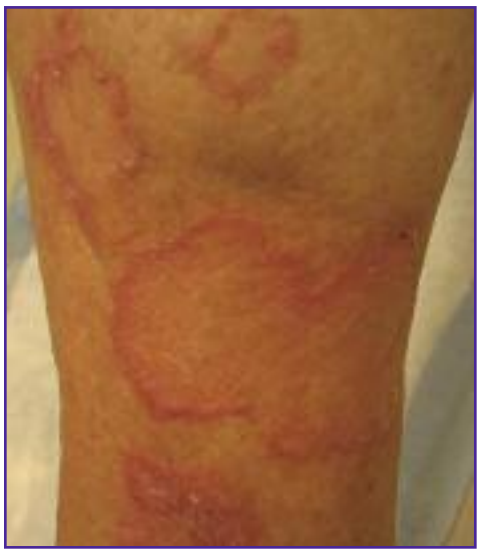
1. What is the diagnosis?
2. What is the significance?
3. What is the treatment?

Answers

1. Pectus carinatum.
2. Pectus carinatum is characterized by anterior protrusion of the chest wall and sternum, which is often accentuated by lateral depression of the costal cartilage (Harrison's groove). When the protrusion is in the sternal manubrium, it is called a chondromanubrial deformity or "pigeon breast." On the other hand, when the protrusion occurs in the body of the sternum, it is called a chondrogladiolar deformity or "chicken breast." The deformity can be unilateral or bilateral. The latter can be symmetrical or asymmetrical. Torsion and angulation of the sternum is seen in 10% of cases. Pectus carinatum usually becomes apparent at about three- to four-years-of-age and progressively increases as the child grows. The deformity becomes much more severe during the period of most rapid growth in adolescence. Most patients are asymptomatic—occasionally, patients may have bone pain or tenderness at the site of protrusion.
3. The condition is often asymptomatic and treatment is usually not necessary. Orthotic bracing or surgery might be considered for cosmetic or psychological reasons.

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

Case 6



Rings on the Legs

A 77-year-old women presents with several "rings" on her legs.

Questions

1. What are these "rings?"
2. Why is it significant?
3. What are the treatment options?

Answers

1. Porokeratosis is a clonal proliferation of atypical keratinocytes. The inciting cause of this clonal proliferation is unknown. There are five types of porokeratosis: linear porokeratosis, punctate porokeratosis, disseminated superficial actinic porokeratosis, classic porokeratosis of Mibelli and porokeratosis palmaris et plantaris. The true incidence is unknown, although it is not uncommon. Clinically, it presents as annular, erythematous, sometimes atrophic papules and large plaques. The border of the lesion has a type of scaling referred to as a "cornoid lamella," that corresponds histologically to a narrow vertical column of parakeratosis. These lesions are usually asymptomatic. A biopsy at the edge of one of these lesions will confirm the diagnosis of porokeratosis.
2. There is a small risk of malignancy developing in these lesions. This can be either a squamous cell carcinoma or basal cell epithelioma. Therefore, these lesions should be treated to prevent this risk.
3. Treatment options include excision, electrodesiccation and curettage, cryotherapy, topical 5-fluorouracil, topical imiquimod cream and oral retinoids. Patients should be followed closely to ensure malignancies have not developed. Dx

Provided by: Dr. Parbeer Grewal