Case 1

Sore and Itchy Lesions

A 47-year-old male presents with a six-month history of these lesions on his face. They are occasionally sore and itchy.

Questions
1. What is your diagnosis?
2. What important question should you ask him?
3. How would you manage this condition?

Answers
1. Rosacea
2. Are your eyes affected? Between 40 and 50% of patients with rosacea have, or will develop, ocular rosacea, which can result in red eyes, grittiness and dryness, frequent styes, conjunctivitis, and, rarely, blindness.
3. For cutaneous rosacea alone, topical metronidazole therapy is a great start. If there is an insufficient response, or moderate to severe rosacea at presentation, consider adding oral tetracycline-family antibiotics for 6 to 12 weeks. Less commonly, low-dose isotretinoin can be used. Lasers and light devices are a great option for the erythema and telangiectases. Trigger factors and the importance of sun protection should be discussed.

Provided by: Dr. Benjamin Barankin

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A four-year-old boy presents with a one-week history of palpable, purpuric, and bullous lesions in the lower extremities. He also has pain and swelling in both ankles. The child does not have abdominal pain.

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

Answers
1. Henoch-Schönlein purpura (HSP)
2. HSP is a small vessel vasculitis with a “classic triad” of abdominal pain, arthralgias, and a palpable purpura. Between 60 and 75% of patients with HSP have a history of upper respiratory tract infection. *Streptococcus* is the most common infecting organism. Palpable purpura is present in almost 100% of patients and can be the presenting sign in up to 50% of cases. Bullous lesion, on the other hand, is rare and may confuse the diagnosis of HSP, especially if the other clinical manifestations are not obvious. The rash associated with HSP is generally in the gravity-dependent areas, such as the lower extremities, with the most severe lesions in the areas under high pressure (dorsum of the feet under shoelaces or ankles with tight fitting socks). Since HSP involves deposition of immunoglobulin A (IgA) and complement 3 (C3) complexes in arterioles and venules, development of IgA nephropathy is of concern.
3. Treatment for HSP is symptomatic. Prednisone should be considered for patients with severe gastrointestinal or joint involvement.

Provided by: Mr. Jeffrey Ng and Dr. Alexander K.C. Leung
Persistent Rash on the Abdomen

A 44-year-old female presents with a two-month history of a mildly pruritic plaque on the right upper quadrant of the abdomen. An increasing number of similar lesions gradually developed on the rest of the abdomen and back over the past two months. This patient has been diagnosed with pityriasis rosea and treated with a low potency topical corticosteroid for symptomatic relief. She was told her condition would clear within two months, but her symptoms have persisted and her condition has continued to deteriorate.

Questions
1. What is the diagnosis?
2. What are the investigations?
3. What is the treatment?

Answers
1. The diagnosis is tinea incognito. In this case, the clinical appearance of the lesions has been altered due to the inappropriate use of a topical corticosteroid.
2. Mycologic investigations with a potassium hydroxide microscopic examination and culture will be helpful. If topical corticosteroids have been applied recently, the amount of surface scales may be reduced and may lead to false negative investigation results.
3. Topical antifungal agents, such as ciclopirox and terbinafine, are appropriate. Systemic antifungal agents may be needed if topical treatments fail to clear the symptoms.

Provided by: Dr. Francesca Cheung
A 63-year-old man presents with bands on the anterior neck. The bands are more noticeable after prolonged talking, especially when he extends his neck.

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

Answers
1. Platysmal bands
2. The platysma is a thin, superficial sheet of muscle extending from the base of the neck to the periosteum of the mandible and the fascia at the corner of the mouth. With aging, there is a reduced collagen deposition and loss of elastic fibres, resulting in increased laxity, thinning, and loss of elasticity of the cervical skin. In addition, there is a reduction in muscle tone of the platysma. Platysmal bands are formed when the anterior fibres of the platysma separate into two vertical bands. Platysmal bands may also result from suboptimal submental liposuction or rhytidectomy. The bands are more visible when the patient talks, especially with the neck extended.
3. Treatment is usually not necessary, except for cosmetic purposes. The condition can be treated with botulinum toxin injections, which are safe and effective. Best results can be obtained if treatment is started early in the aging process to prevent further degenerative changes to the platysma.

Provided by: Dr. Alexander K.C. Leung and Dr. Chi-Kong Or
Asymptomatic, Yellowish Papules on the Face

A 64-year-old female has slowly developed several of these asymptomatic, yellowish papules on her face.

Questions
1. What is your diagnosis?
2. What part of the body are these lesions most commonly found on?
3. Which type of patient is most commonly affected by this lesion?

Answers
1. Sebaceous hyperplasia (enlarged oil glands)
2. These lesions are most commonly found on the face.
3. Organ transplant patients are often affected.

Provided by: Dr. Benjamin Barankin
Hyperpigmentation on the Cheeks

A 49-year-old woman presents with hyperpigmentation of the skin on her cheeks. She first noticed this approximately 20 years ago.

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

Answers
1. Hori’s nevus
2. Hori’s nevus (also known as acquired bilateral nevus of Ota-like macules) is a dermal lesion commonly seen in Asian women. Onset is typically after the age of 20. These lesions present clinically in a similar fashion to acquired nevus of Ota and are characterized by blue-brown macules that occur bilaterally on the forehead, eyelids, malar areas, and temples. In contrast, acquired nevus of Ota typically presents unilaterally. Characteristically, in Hori’s nevus, the conjunctiva and mucous membranes of the nose and mouth are spared. Histologically, in Hori’s nevus, the melanocytes are distributed in the papillary and middle portions of the dermis, whereas, in nevus of Ota, the melanocytes are dispersed diffusely throughout the whole dermis. UV radiation and hormonal changes from pregnancy have been postulated as the etiology of this acquired melanocytosis, but the exact pathogenesis is unclear.
3. Treatment options include dermabrasion or laser irradiation; the latter is more effective. Compared with nevus of Ota, Hori’s nevus is more refractory to treatment.

Provided by: Mr. Jeffrey Ng and Dr. Alexander K.C. Leung
A 34-year-old female develops a white plaque with maceration in the fourth interdigital space of the left foot. She has been treated with topical terbinafine and ciclopirox with no improvement.

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

**Answers**
1. Soft corn
2. Formation of a soft corn is triggered by abnormal mechanical stress from either intrinsic factors, such as foot deformities, or extrinsic factors, such as poorly fitting footwear.
3. Treatment involves minor debridement with a pumice stone and use of keratolytics, such as salicylic acid. The pressure on the affected area should be relieved whenever possible using soft cushioning material or toe spacers. Proper footwear and better foot hygiene are essential to prevent symptom recurrence. Antifungal or antibacterial powders are useful for treatment of secondary infection.

Provided by: Dr. Francesca Cheung
Nodule on the Ear

A 76-year-old healthy male presents with a two year history of a painful 9 mm erythematous nodule with raised edges located on the right antihelix. He mentions a habit of sleeping on the right side of his face.

Questions
1. What is the diagnosis?
2. What is the epidemiology of the condition?
3. What are the common clinical features notable in the patient’s history, and what is the standard of care for making the diagnosis?
4. What is the treatment?

Answers
1. This is chondrodermatitis nodularis helicis (CNH). The differential diagnosis includes basal cell carcinoma and squamous cell carcinoma.
2. CNH is usually found in middle-aged to older males and females. The onset is usually preceded by a history of trivial injury at the site, including pressure trauma that would be sustained by sleeping preferentially on one side every night at the apex of the helix or antihelix.
3. The presentation may include bilateral ear involvement but is usually unilateral. The nodules grow rapidly to a stable size (7 to 10 mm) and are chronic. The standard of care, when the diagnosis is in doubt, involves a skin biopsy.
4. Ring-shaped, soft devices, such as “donut pillows,” can be utilized to relieve the pressure during sleep. Injection of soft tissue fillers can also create some cushioning. Topical or intrallesional corticosteroids are beneficial if lesions are inflamed. In the rare case of infection, topical antibiotics are indicated. Surgical referral should be considered if medical management fails.

Provided by: Ms. Jessica Asgarpour, Mr. Russell Wong, and Dr. Jaggi Rao
A 42-year-old female has a one year history of a pinkish plaque on the right axilla. The lesion has been slightly pruritic. She was prescribed terbinafine by her family physician, but has not found any improvement.

Questions
1. What is the diagnosis?
2. How is the condition diagnosed?
3. What is the management?

Answers
1. Extramammary Paget’s disease
2. Diagnosis of extramammary Paget’s disease requires a high degree of clinical suspicion. Confirmation of diagnosis is made by skin biopsy. Special stains may be necessary to differentiate Paget’s disease from malignant melanoma.
3. Surgical excision is the standard treatment. Recurrence is common, and, after surgery, patients should have follow-up appointments every three months for at least two years. Annual follow-ups are recommended afterwards. Case reports show that imiquimod and fluorouracil may be promising additional therapies. Approximately 25% of extramammary Paget’s disease is associated with an underlying cancer, and appropriate investigations should be performed to rule out internal malignancy.

Provided by: Dr. Francesca Cheung
A nine-year-old boy presents with a one-and-a-half-year history of a shiny, whitish lesion on his right forehead. The lesion is asymptomatic and was not preceded by trauma. Examination reveals a light brown, band-like, longitudinal linear depressed lesion on the right side of his forehead, extending from beyond the hairline down to the margin of the orbit and along the inner aspect of the right nasal bones. There is a central shiny plaque measuring approximately 0.5 cm in diameter. In addition, there is noticeable atrophy of the right glabellar region, as well as some slight atrophy of the right nare. In the area along the nasal bridge, the skin appears translucent. Mild alopecia is also noted at the hairline and at the location where the lesion crosses the eyebrow.

Questions
1. What is the diagnosis?
2. What associated findings are important to consider?
3. What treatment options are available?

Answers
1. Morphea “en coup de sabre” (localized linear scleroderma)
2. Neurologic findings, both clinically and on imaging, should be considered. Clinically, patients with “en coup de sabre” may experience neurological symptoms, such as headaches, seizures, and facial paralysis. Morphea “en coup de sabre” has been reported to be associated with ipsilateral cerebral lesions, regardless of clinical neurological presentation. Hyperintense white matter changes on T2 weighted imaging, cortical deformity, and intraparenchymal calcification have all been reported in the literature.
3. Morphea is often benign, self-limited, and frequently spontaneously resolves, leaving hyperpigmentation, but the “en coup de sabre” variant is often deep and may present a significant cosmetic problem. Typically, treatment involves topical corticosteroids, calcipotriol cream or 0.1% tacrolimus ointment. In more severe cases, pulse systemic steroids and methotrexate may be considered.

Provided by: Ms. Allison Chabassol and Dr. Laura Finlayson
Wrist Pain and Swelling

An 11-year-old, otherwise healthy male presents to the emergency room after sustaining a left-sided fall on outstretched hand (FOOSH) injury after tripping on uneven ground. There is swelling and tenderness at the distal ulna. The range of motion of his wrist is limited due to pain. The rest of the exam, including scaphoid testing, was normal.

Questions
1. What is the diagnosis?
2. How was this diagnosed?
3. What is the management?

Answers
1. This is a Salter-Harris type I fracture of the left ulna. Salter-Harris injuries are fractures that involve the epiphysis, physis, and metaphysis, and they are classified from I through V. Salter-Harris type I fractures occur transversely through the physis and do not involve the bone of either the epiphysis or the metaphysis. The growth plate remains attached to the epiphysis and is considered to be at low risk for injury, giving a good prognosis for normal bone growth.
2. Anteroposterior, lateral and oblique x-rays of the patient’s forearm and wrist were taken. Since Salter-Harris type I fractures are difficult to detect radiologically, there must be a high index of suspicion for a fracture due to the patient’s clinical exam.
3. Immobilization via splinting or casting is required for four to six weeks.

Provided by: Dr. Karen Choi
Spreading Papules

An otherwise healthy 13-year-old boy presents with a seven-month history of pruritic papules that are slowly spreading. Examination reveals multiple firm, dome-shaped, umbilicated, 2 to 5 mm, flesh-coloured papules. On closer examination, the patient is noted to have multiple lesions on the chest, trunk, and axillae. The palms of the hands and the dorsal surfaces of the feet are spared. The patient's mother notes that lesions first appeared after he started attending a public pool. The remainder of the physical examination is normal.

Questions
1. What is the diagnosis, and what is the underlying etiology?
2. How is the condition transmitted, and what is the epidemiology of the condition involved?
3. What is the treatment?

Answers
1. The diagnosis is molluscum contagiosum (MC). MC is caused by a poxvirus infection. MC is a chronic, superficial infection of the skin only, and it is self-limited.
3. The infection requires direct skin contact. Autoinoculation is also common. MC is a common skin disorder, with a worldwide distribution. Adult presentation should be more carefully investigated, as it is often sexually transmitted in this context, or it may be an indication of immunosuppression.
5. Cryotherapy or curettage may be considered as first line therapy. Irritants, such as cantharidin, podophyllin, and salicylic acid are also utilized to eradicate MC by stimulating the skin’s inherent immunity. In an immunocompetent host, MC will naturally resolve in a few months. Young children should avoid touching or scratching these lesions to avoid autoinoculation and should refrain from bathing with other young children to prevent skin-to-skin contact transmission.

Provided by: Ms. Jessica Asgarpour, Mr. Russell Wong, and Dr. Jaggi Rao
Swollen, Achy, Discoloured Legs

A 57-year-old, overweight female presents with swollen, achy, discoloured legs of three-years duration.

Questions
1. What is your diagnosis?
2. If this condition isn’t well-managed, what is the concern?
3. How would you manage this condition?

Answers
1. Venous stasis dermatitis
2. Prolonged edema will lead to more extensive and permanent skin discolouration, and there is a risk of skin breakdown into an ulcer. With ulceration, infection and allergic contact dermatitis become increasingly problematic.
3. Leg elevation when sitting, reading, or watching TV may help manage the condition. Fitted compression socks should be worn daily — start at a low compression of 15 to 20 mmHg to get them used to the tightness and then compression can be increased. A Doppler ultrasound should be considered prior to any compression socks. For itching of the legs, which is fairly common, a mild topical steroid or topical calcineurin inhibitor (e.g., tacrolimus, pimecrolimus) should be considered.

Provided by: Dr. Benjamin Barankin
Uneven Pupils

A three-month-old girl is noted to have unequal pupil sizes during a routine physical examination. The right pupil is larger than the left one by approximately 1 mm. Both pupils react to direct, consensual, and near stimulation. The neurological examination is normal. The infant is not on any medication. There is no history of trauma to the eye.

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

Answers
1. Physiological anisocoria
2. Approximately 10 to 20% of normal individuals have physiological anisocoria, which is non pathological pupil size difference ≤ 2 mm. Pathological causes of anisocoria include Horner syndrome, third nerve palsy, iritis, trauma, Adie tonic pupil, and pharmacological anisocoria. Horner syndrome is characterized by miosis, ptosis, apparent enophthalmos (with or without anhidrosis), flushing on the side of the lesion, and heterochromia iridis, which may result if the injury to the cervical sympathetic nervous system occurs prior to the age of two. Third nerve palsy usually presents with exotropia, mydriasis, ptosis, and downward deviation of the affected eye. A red, painful, and tearing eye with slight miosis in a photophobic patient suggests iritis. Trauma may result in mydriasis. Adie tonic pupil usually begins suddenly in females 20- to 40-years-of-age. In this condition, there is a parasympathetic denervation of the sphincter muscle. Denervation hypersensitivity to 0.125% pilocarpine is used for diagnosis. Normal pupils do not constrict with this dilute amount of pilocarpine. Adie tonic pupil typically presents with a poorly reactive pupil, blurred near vision, and photophobia. Topical cholinergic agents, such as pilocarpine, are common causes of pharmacological miosis. Topical anticholinergic agents, such as atropine, may result in mydriasis. Contamination of the eye with nebulized ipratropium bromide or exposure to scopolamine may also lead to mydriasis.
3. Treatment is not necessary for physiological anisocoria. For pathological anisocoria, the underlying cause should be treated if possible.
Deep-seated Pustules and Nodules

A 19-year-old woman presents with a three-year history of progressively enlarging, deep-seated pustules and nodules that occasionally interconnect to form abscesses. They are located on her face, back, chest, and buttocks. Upon closer examination, multiple sinus tracks as well as scarring on the affected areas are notable. The patient’s history and laboratory examinations are grossly normal.

Questions
1. What is the diagnosis?
2. What is the epidemiology of the condition?
3. What are the most likely pathogens isolatable from the nodules?
4. What is the treatment? Is there a role for therapy with isotretinoin?

Answers
1. Acne conglobata (AC) is characterized by interconnecting pustules, nodules, abscess formation, and scar tissue formation.
2. The lesions occur on the face, back, chest, and buttocks. They are usually seen in young males (18 to 30 years old), and the etiology is unknown.
3. A mix of Gram positive and Gram negative bacteria can be isolated from lesions; coagulase-positive Staphylococcus aureus are quite commonly found.
4. The treatment usually involves systemic antibiotic therapy as well as local/systemic corticosteroids (e.g., prednisone 0.5 to 1 mg/kg q.d. for two to four weeks). Many patients respond well to oral isotretinoin 0.5 mg/kg. It is important to note that possible initial exacerbation of symptoms may occur with this medication.

Provided by: Ms. Jessica Asgarpour, Mr. Russell Wong, and Dr. Jaggi Rao