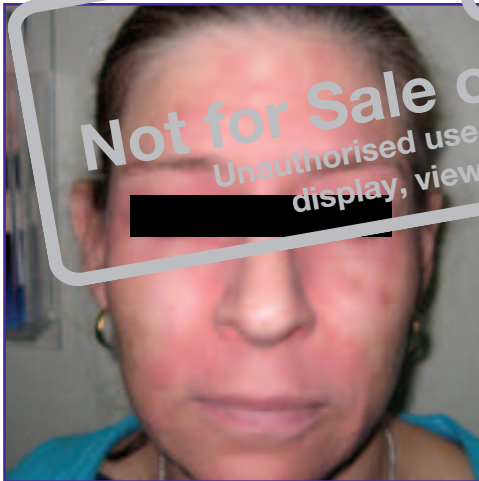




# Photo Diagnosis

*Illustrated quizzes on problems seen in everyday practice*

## Case 1



## Inflammatory Papules on the Face

A 44-year-old female presents with a three-month history of erythema and inflammatory papules on an extensive area of the face. She has been treated with mometasone furoate, which initially worked well to clear the symptoms, but the symptoms recurred once the medication was discontinued. In the past two weeks, mometasone furoate has not been efficacious at all.

### Questions

1. What is the diagnosis?
2. What is the etiology of this condition?
3. What are the treatments?

### Answers

1. Periorificial dermatitis
2. An underlying cause of periorificial dermatitis may not be detected in all patients. Topical corticosteroid preparations appear to be the most common cause. Skin care creams and ointments, fluorinated toothpaste, foundation makeup, and sunscreens may all provoke periorificial dermatitis.
3. The underlying causative factor should be eliminated by discontinuation of all face creams, including topical corticosteroids and cosmetics. Systemic treatment with tetracycline or one of its derivatives will be effective. Topical antibiotics, such as metronidazole, tend to be less effective. An initial deterioration of the symptoms may occur with treatment, especially if topical corticosteroids are withdrawn.

Provided by: Dr. Francesca Cheung

## Share your photos and diagnoses with us!

Do you have a photo diagnosis? Send us your photo and a brief text explaining the presentation of the illness, your diagnosis and treatment and receive \$25 per item if it is published.

*The Canadian Journal of Diagnosis*  
6500 Trans-Canada Highway, Suite 310  
Pointe-Claire, Québec H9R 0A5

Email: [diagnosis@sta.ca](mailto:diagnosis@sta.ca)  
Fax: (888) 695-8554

Case 2



## *Raised White Plaques on the Tongue*

A 66-year-old female developed raised, white to cream coloured plaques over the posterior part of her tongue. She wears dentures and smokes.

### Questions

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

### Answers

1. Tongue fungus (thrush)
2. Oral thrush, also known as candidiasis, is a yeast infection that develops inside the mouth. The condition results in white patches that are often cottage-cheese-like in consistency on the surfaces of the mouth and tongue. Oral thrush is most commonly seen in infants and the elderly, especially denture wearers, or in people with compromised immune systems. People with diabetes and people taking inhaled steroids for asthma or lung disease can also get thrush. Oral thrush is more likely to occur after patients receive broad-spectrum antibiotics or steroids for a long period of time.
3. A presumptive diagnosis can be made by looking at the mouth and observing characteristic plaques on the tongue and inner cheeks. If in doubt, a smear of the white exudates can be Gram stained, and a positive stain will show blue-coloured, budding yeast under magnification. Topical therapy with clotrimazole or nystatin is recommended for mild disease. Fluconazole is recommended for moderate to severe disease. This patient was treated with local nystatin and oral fluconazole, and her problem finally cleared up after oral treatment with ketoconazole.

Provided by: Dr. Jerzy K. Pawlak and Dr. Piotr Gutknecht

## Case 3



## *Red and Itchy Eye*

A 47-year-old woman presents complaining of redness of her left eye, which has been present since yesterday. She has mild itching and watery discharge but denies pain or vision changes. She also has a slightly sore throat. Examination reveals injection of the left eye. The rest of her examination is unremarkable.

### Questions

1. What is the diagnosis?
2. What is the etiology?
3. What is the management?

### Answers

1. Conjunctivitis (likely viral)
2. Adenovirus is the most common pathogen. Others include coxsackievirus, enterovirus, Epstein-Barr virus, and herpes simplex virus.
3. Patients should be educated that the disease is self-limited and highly contagious. Management consists of supportive measures, such as lubricant eye drops and cold compresses. Topical antibiotics may be considered in the unlikely event of a superimposed bacterial infection.

Provided by: Dr. Kimmy Goyal and Dr. Ankush Goyal



Case 4



## *Rash on the Cheek*

An eight-year-old girl presents with a rash on the right cheek. She has been applying corticosteroid cream to her face for the past two weeks for an itchy rash that had been presumed to be atopic dermatitis.

### Questions

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

### Answers

1. Steroid rosacea
2. Steroid rosacea is caused by excessive application of topical corticosteroids (particularly fluorinated ones) to facial skin. The condition can also occur as a rebound phenomenon in response to the discontinuation of topical corticosteroids. Steroid rosacea presents as erythematous patches and papules (red face syndrome). Pustules, telangiectasia, and atrophy may also be seen in untreated cases. Some patients describe an itching or burning sensation in the affected area. Sites of predilection include the centropacial, perioral, and periocular areas. It is believed that the vasoconstrictive effect of corticosteroids leads to the accumulation of nitric oxide, which is a potent vasodilator. The immunosuppressive effect of corticosteroids may facilitate the overgrowth of micro-organisms on the surface of the skin. These micro-organisms may then act as superantigens and cause an inflammatory reaction. In addition, topical corticosteroids inhibit collagen synthesis, thereby facilitating passive dilatation of blood vessels and easier visualization of dermal capillaries.
3. Children with steroid rosacea should avoid hot drinks, spicy food, wind, and extremes of cold and hot temperatures, because they can worsen the rash. Treatment consists of topical application of calcineurin inhibitors, such as tacrolimus ointment and pimecrolimus cream, twice a day to the affected area. Oral erythromycin can hasten the resolution of the rash.

Provided by: Ms. Vicky Mah and Dr. Alexander K.C. Leung

## Case 5



## *A Rapidly Enlarging Lesion on the Back*

A 24-year-old female presents with a two-month history of an enlarging vascular nodule on the back. It bleeds profusely with minimal friction.

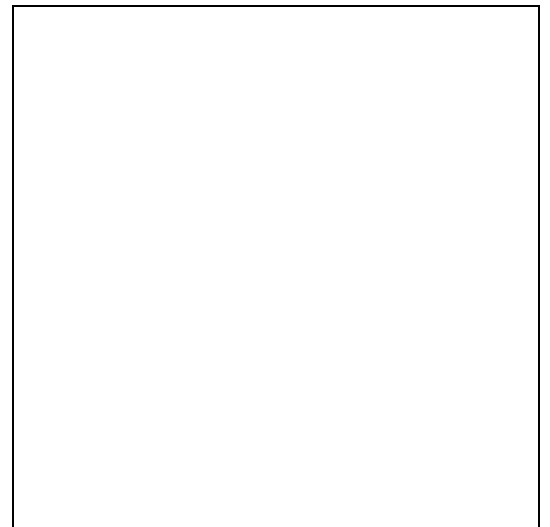
### Questions

1. What is the diagnosis?
2. What are the causes of this condition?
3. What is the management?

### Answers

1. Pyogenic granuloma
2. The exact etiology of pyogenic granuloma is not clear. Factors that have been implicated in the development of pyogenic granuloma include trauma, infection, hormonal influences, such as pregnancy, medication, and underlying arteriovenous malformations.
3. Pyogenic granulomas may be removed by curettage and cauterization, cryotherapy, or surgical excision. If the condition is medication-induced, the lesions tend to disappear when the medication is discontinued. Lesions that are developed during pregnancy tend to resolve spontaneously after delivery.

Provided by: Dr. Francesca Cheung



Case 6



## Bilateral Tender Masses

A 17-year-old boy presents with fever, sore throat, and bilateral tender masses in the cervical area.

### Questions

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

### Answers

1. Cervical lymphadenopathy
2. The most common cause of cervical lymphadenopathy is reactive hyperplasia resulting from an infectious process, most commonly a viral upper respiratory tract infection (URTI). URIs might be caused by rhinovirus, parainfluenza virus, influenza virus, respiratory syncytial virus, coronavirus, adenovirus, or reovirus. Other viruses associated with cervical lymphadenopathy include Epstein-Barr virus, cytomegalovirus, rubella, rubeola, varicella-zoster virus, herpes simplex virus, coxsackievirus, and human immunodeficiency virus. Bacterial cervical lymphadenopathy is usually caused by *Streptococcus pyogenes* or *Staphylococcus aureus*. Anaerobic bacteria can cause cervical lymphadenopathy, usually in association with dental caries and periodontal disease. Acute bilateral cervical lymphadenopathy is usually caused by a viral URTI or streptococcal pharyngitis. Acute unilateral cervical lymphadenopathy is caused by streptococcal or staphylococcal infection in 40 to 80% of cases. Generalized lymphadenopathy is often caused by a viral infection, and, less frequently, by malignancies, collagen vascular diseases, and medications.
3. Most cases of cervical lymphadenopathy are self-limited and require no treatment. The treatment of acute bacterial cervical lymphadenopathy, without a known primary source should provide adequate coverage for both *S. aureus* and *S. pyogenes*.

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

### Case 7



## Foot Lesion

A 30-year-old woman presents to the clinic complaining of a growing lesion on the bottom of her left foot that hurts with walking and standing. She reports that it started during her trip to Africa, where she walked barefoot outdoors. She is concerned that it may be an infection. Physical examination of the left sole shows an area of multiple, small, circular papules that are rough and thickened.

### Questions

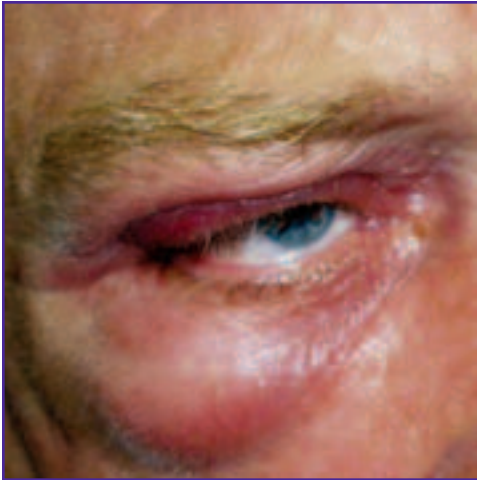
1. What is the diagnosis?
2. What are the signs and symptoms?
3. What is the treatment?

### Answers

1. Plantar wart, caused by the human papillomavirus
2. It presents as a small, hyperkeratotic papule with small black petechiae in the centre. A rough patch of skin, similar to a callus, overlies the central lesion. Patients may complain of pain due to pressure on the lesion during walking or standing.
3. These skin lesions usually self-resolve over time, so simple reassurance may be all that is necessary. However, most lesions are painful, and many patients request treatment. Cryotherapy with liquid nitrogen is a popular treatment. Salicylic acid may be advised as a keratolytic to peel away the dead surface of skin cells. These modalities are often prescribed concurrently to improve efficacy.

Provided by: Dr. Kimmy Goyal and Dr. Fenny Goyal

Case 8



## Wasp Sting

This 33-year-old man visits the clinic, because he developed painful, red swelling over his right eye area shortly after he was stung by a wasp. He is otherwise stable.

### Questions

1. Are medical problems from bee and wasp stings different?
2. What kind of medical problems can we observe?
3. How should this case be managed?

### Answers

1. Medical problems are the same for both bee and wasp stings.
2. Medical problems from bee and wasp stings are broadly broken down into three categories: local reactions where only the part of the body near the sting is affected, systemic or allergic reactions where parts of the body away from the sting are affected, and severe cases. Local reactions may include immediate pain, redness, swelling, and itching at the sting site; a large (greater than four inches across) local reaction that may develop over the next 12 to 36 hours; and a bacterial skin infection (although more common with wasp bites) that may also begin during the first 12 to 36 hours (or even after the first few days) and may cause an enlarging area of redness at the sting site. It may be difficult to tell a local skin reaction and a local bacterial skin infection apart. Systemic or allergic reactions may include hives (raised, itchy bumps on the skin) and itching all over the body; swelling of the mouth, throat, or both; wheezing; shortness of breath or other difficulty breathing; nausea; vomiting; anxiety; and chest pain. In severe cases, marked difficulty breathing, unconsciousness, and even death may occur.
3. Management should include a local compress, local steroid ointments, oral antihistamines, and follow-up the next day to rule out any bacterial involvement.

Provided by: Dr. Jerzy K. Pawlak



### Case 9



## *Bleeding Cheek Lesion*

A 74-year-old female presents with a three-year history of an enlarging left cheek lesion. It bleeds intermittently with minimal friction when she dries her face with a towel after washing.

### Questions

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

### Answers

1. Basal cell carcinoma (BCC)
2. Small superficial BCC may respond to cryotherapy. Surgical modalities, such as electrodesiccation and curettage, excisional surgery, and Mohs surgery are most effective. Superficial BCC may respond to topical 5% imiquimod or photodynamic therapy. Radiation therapy can be used for advanced and extended lesions and in patients where surgery is contraindicated.

Provided by: Dr. Francesca Cheung

Case 10



## *Streaks on the Arm*

A six-year-old, Asian boy presents with hypopigmented streaks on the left arm and forearm. The child is asymptomatic and is otherwise healthy.

### Questions

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

### Answers

1. Hypomelanosis of Ito
2. Hypomelanosis of Ito is characterized by seemingly bizarre, macular, hypopigmented linear streaks, stripes, whorls, and patches that conform to Blaschko's lines. The lesions usually present at birth or in early childhood. The incidence is estimated to be 1 in 7,540 live births. The male to female ratio is approximately 1 to 1.7. The condition is more common in darker-skinned individuals. Chromosomal abnormalities are found in approximately 50% of cases, especially in balanced X-autosomal translocations and mosaicism. Most cases are sporadic. Presumably, the cutaneous lesions result from the convergence of the paths of migration of two different clones of melanocytes that have different pigment-producing potential. Approximately two-thirds of affected individuals have extracutaneous manifestations of the disease, including hypotonia, psychomotor retardation, autism, epilepsy, macrocephaly, cortical atrophy, spina bifida, syndactyly, short stature, kyphoscoliosis, hypertelorism, strabismus, and nystagmus.
3. There is no specific treatment. The use of sunscreen might minimize the contrast between the affected skin and normal skin. Affected areas can be camouflaged with tanning lotions, spray tans, or makeup.

Provided by: Dr. Alexander K.C. Leung and Dr. Benjamin Barankin

## Case 11



## Abdominal Mass

An 82-year-old, white male is noted to have an obvious mass in his abdomen. He reports that it has been there for years and only becomes more pronounced when he coughs or strains. He is not bothered by it and denies any history of abdominal surgery.

### Questions

1. What is your diagnosis?
2. What is the etiology?
3. What are indications for treatment?

### Answers

1. Ventral hernia
2. Ventral hernias are caused by a defect in the fascia and musculature of the anterior abdominal wall, which leads to the protrusion of the contents of the intra-abdominal cavity. These types of hernias can be spontaneous or acquired.
3. In asymptomatic cases, simple reassurance is adequate. Indications for treatment include pain and cosmetic concerns. A hernia that can not be reduced is said to be incarcerated and can lead to strangulation and necrosis of the involved tissue. This is an indication for emergency surgery.

Provided by: Dr. Kimmy Goyal and Dr. Fenny Goyal

Case 12



## Hypopigmented Patches

A 42-year-old man presents with asymptomatic hypopigmented patches on the chest and upper abdomen of four-months duration.

### Questions

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

### Answers

1. Pityriasis versicolor (tinea versicolor)
2. Pityriasis versicolor is a common superficial fungal infection that presents with hypopigmented, hyperpigmented, or erythematous macules. The lesion is most commonly found in areas of skin that are rich in sebum production, such as the neck, trunk, and proximal upper extremities. The causative agent is a dimorphic, lipid-dependent, saprophytic yeast in the *Malassezia* genus. The term “versicolor” pertains to the changes in pigmentation that are associated with this disorder. Lesion colours can vary between individuals but rarely between lesions in one individual. Most lesions are asymptomatic, but there may be concerns of cosmesis or cases of mild pruritus. Diagnosis is made clinically, but a potassium-hydroxide preparation will show a distinct pattern of hyphae intermixed with clusters of spores (the “spaghetti and meatballs” appearance). Differential diagnoses to consider include seborrheic dermatitis, pityriasis rosea, pityriasis alba, erythrasma, and secondary syphilis.
3. Most patients respond to topical antifungals (*e.g.*, ketoconazole, terbinafide) or selenium sulfide. Systemic therapy (*e.g.*, ketoconazole, fluconazole) is usually reserved for extensive disease, frequent recurrences, or disease that is refractory to topical therapies. Following treatment, hypopigmentation and hyperpigmentation may still persist for months.

Provided by: Ms. Shirley Chan and Dr. Alexander K.C. Leung

Case 13



## *Erythematous Papules*

A 20-year-old male presents with a two-week history of erythematous papules and plaques on widespread areas of the occiput of the scalp, torso, and extremities. He denies any recent illness and has been otherwise healthy. He is not on any over-the-counter or prescription medications. There is no family history of a similar condition.

### Questions

1. What is the diagnosis?
2. What are the treatments?



### Answers

1. Psoriasis
2. Common treatment options include topical corticosteroids, coal tar and keratolytic agents, vitamin D analogues, topical retinoids, psoralen ultraviolet A (PUVA) or UVB phototherapy, antimetabolites, such as methotrexate, immunomodulators, such as cyclosporine, and biologics.

Provided by: Dr. Francesca Cheung

## Case 14



## *Itchy Rash*


A 75-year-old female with a long history of hypertension and diabetes developed a very itchy rash on her neck and chest and under her breasts. Upon further questioning, she states that her problem started about two weeks ago, shortly after she started taking cinnamon extract capsules to normalize her blood sugar level.

### Questions

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



### Answers

1. Allergic eczema
2. An allergic reaction to cinnamon can cause a wide range of symptoms, depending on the severity of the allergy and whether the cinnamon touches the skin or is ingested internally. Some of the most common symptoms include watery eyes, runny nose, and cough. Skin irritation may result in various types of dermatitis, including eczema. Swelling of the face or throat, especially if accompanied by difficulty breathing, may indicate the presence of a severe, and potentially life-threatening, allergic reaction known as anaphylaxis.
3. Instruct the patient to stop using cinnamon and to initiate the use of antihistamines and local hydrocortisone cream. 

Provided by: Dr. Jerzy K. Pawlak