



## This month — 7 cases:

*Editor's Picks  
"Best of 2013"*

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## Case 1

# Multiple Dots on the Face

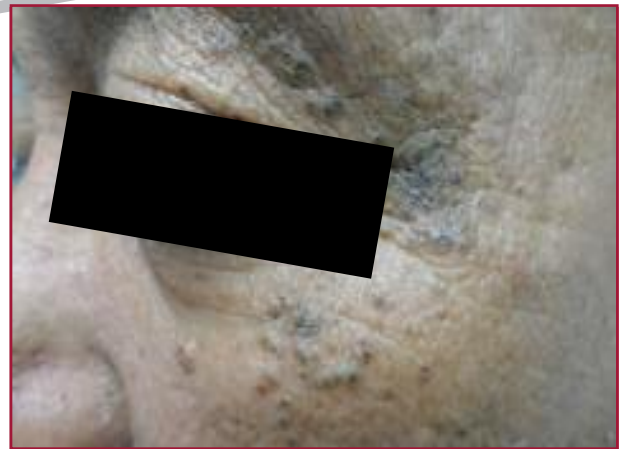
This 60-year-old man is concerned about an increasing number of dots appearing in the lateral orbital area bilaterally.

## What is your diagnosis?

- Sun freckles
- Lentigines
- Favre-Racouchot syndrome
- Poikiloderma of Civatte
- Cutis rhomboidalis nuchae

## Answer

He has Favre-Racouchot syndrome (**answer c**). There are multiple skin conditions that are caused by sun damage that appear gradually over the years and are not precancerous. These include sun freckles, lentigines, Poikiloderma of civatte at the sides of the neck, rhomboidalis nuchae, as well as Favre-Racouchot syndrome. This entity consists of multiple, large, open comedones on the lateral and inferior aspects of the orbital area.



It most commonly occurs in older individuals with associated solar elastosis.

Individual comedones can be expressed, and topical retinoids can be applied to these areas to slow the inevitable recurrence of comedones. Sun protection is also advised.

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Case 2

## Sore Pimple on the Buttock

A 32-year-old male truck driver arrives at the clinic complaining of a sore pimple on his buttock of a few days duration. He denies having had similar lesions in the past. He reports that the friction from the waistband of his underwear has been aggravating it. On physical examination, there is an 8 mm opening with thick, yellow exudate on the left side of his buttock. An underlying induration of 3 cm is also noted with moderate tenderness.

### What is your diagnosis?

- a. Furuncle
- b. Carbuncle
- c. Acne vulgaris
- d. Folliculitis
- e. Pilonidal cyst

### Answer

A furuncle (**answer a**), also known as a boil, is a very common occurrence. It is an abscess that forms within a hair follicle. A carbuncle is a group of furuncles that usually lie deep within the skin and are more likely to form a scar.

*Staphylococcus* is a commonly identified pathogen causing this condition. Though these lesions can occur in anyone, those at higher risk include obese, elderly, and immunocompromised individuals.

Furuncles are usually located in hair-bearing areas of the body, which perspire and undergo friction. These include the axilla, groin, buttocks, the area underneath abdominal fat pads, and the face.

A furuncle typically starts as a small, pink, tender papule or nodule, similar to a pimple. It gradually becomes larger and more painful as it accumulates



purulent material. The surrounding skin becomes increasingly inflamed and swollen as the lesion forms a fluctuant mass. It eventually tends to rupture and drain, either on its own or following a therapeutic incision and drainage procedure.

Diagnosis is made based on the appearance of the lesion. If furuncles are a recurring problem, or if they fail medical management, a culture should be obtained to help guide further treatment.

Patients are encouraged to keep the area clean and to apply warm compresses to help encourage drainage and relieve pain. An incision and drainage may be necessary if supportive measures are failing, and this is typically performed in the office setting. Antibiotic treatment should cover *Staphylococcus* and *Streptococcus*.

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Case 3

# Calor, Dolor, Tumor, and Rubor

An 84-year-old man is admitted to the internal medicine teaching service with a one-day history of fever, chills, and left arm pain. Physical examination reveals tachycardia and a temperature of 39.8°C. Initial examination of the upper extremities reveals left arm warmth, swelling, and tenderness. Several days after admission, the patient's left arm becomes erythematous.

### What is your diagnosis?

- a. Cellulitis
- b. Erysipelas
- c. Necrotizing fasciitis
- d. Herpes zoster

### Answer

Cellulitis (**answer a**) is an acute infection of the lower dermis and subcutaneous tissue. It occurs when bacteria breaches the protective skin barrier. The diagnosis is clinical, and cellulitis often presents with fever and malaise along with the classic signs of inflammation: warmth (calor), pain (dolor), swelling (tumor), and erythema (rubor). The causative organisms in the majority of cases are *Staphylococcus aureus* and *Streptococcus pyogenes*.

Patients with diabetes, obesity, venous insufficiency, pre-existing lymphedema, peripheral vascular disease, insect bites, and trauma are at higher risk of developing cellulitis. Dependent areas (e.g., lower extremities) are more commonly involved.

Cellulitis can be distinguished from erysipelas, as the latter involves only the upper dermis and has a well-demarcated, indurated, and uniformly erythematous area of involvement. The presence of rapid progression, clinical deterioration, foul-smelling wound drainage, a blue-grey skin discoloration, or crepitations on palpation should lead one to consider a necrotizing infection.



Herpes zoster is distinguished by the presence of erythematous papules and vesicles that typically occupy a single dermatomal distribution with an associated painful sensory prodrome.

The management of cellulitis includes analgesia, elevation of the affected limb to reduce swelling, optimizing the management of any underlying predisposing factors, and the initiation of antibiotic therapy. The borders of the involved area should be marked and assessed frequently. Blood cultures are appropriate in patients who appear toxic. Some guidelines advocate wound swabs. For the majority of patients, a 7- to 10-day course of an oral penicillin or first-generation cephalosporin is sufficient. Sicker patients may require hospitalization and intravenous antibiotics.

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Case 4

# Linear, Raised Lesions

A five-month-old female presents with linear, raised lesions following stroking of the skin.

### What is your diagnosis?

- a. Mastocytosis
- b. Dermatographism
- c. Linear epidermal nevus

### Answer

Dermatographism (**answer b**) is a common phenomenon in infants, occurring in approximately 50% of children. It tends to decrease with age, and, as such, it is only noted in approximately 1% of adolescents. Dermatographism, also known as dermographism or the triple response of Lewis, is one of the physical types of urticaria. It is characterized by a sharply localized, edematous or wheal reaction with an area or surrounding erythema. This reaction occurs exactly at the site of firm stroking of the skin, within seconds to minutes of the stimulation. Typically, the response reaches maximal intensity at about six minutes and persists for about 15 minutes.

Mastocytosis refers to a group of disorders characterized by the accumulation of mast cells in the skin, and possibly other areas of the body. Mastocytosis may be congenital, and ~55% of patients have an onset of mastocytosis before two-years-of-age. The clinical spectrum includes mastocytomas (single or multiple), urticaria pigmentosa, bullous mastocytosis, diffuse cutaneous mastocytosis, and telangiectasia macularis eruptiva perstans. The diagnosis is aided by Darier's sign, a phenomenon that consists of localized erythema and urticarial wheals at the site of the lesion(s) following gentle mechanical irritation. Darier's sign is positive



in greater than 90% of mastocytosis but is most often negative in those mastocytic lesions that are completely flat at baseline.

A linear epidermal nevus, also known as an inflammatory linear verrucous epidermal nevus, presents as erythematous, scaly, and verrucous papules, which coalesce into linear plaques as part of a chronic pruritic process. Lesions often present at birth or early childhood and most often affect an extremity. Linear epidermal nevi have a chronic, intermittent course and are resistant to therapy. Topical corticosteroids may reduce inflammation and pruritus, but lesions usually recur.

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## Case 5

## A Lump on the Scalp

A 90-year-old female was advised by her hairdresser to see her physician about a lump on her scalp. The patient says she has had this lump for as long as she can remember, and it never caused any problems. She is in good health for her age, and she is on warfarin for chronic atrial fibrillation.

### What is your diagnosis?

- Epidermoid cyst
- Cylindroma
- Trichilemmoma
- Lipoma

An epidermoid cyst (sebaceous cyst, epidermoid inclusion cyst) (**answer a**) is a smooth, dome-shaped swelling that occurs predominantly on the face, neck, scalp, and upper trunk from damage to the pilosebaceous units. A punctum is usually present.

Histologically, the cysts are lined by an epidermis-like epithelium, including a granular cell layer. The cysts contain laminated keratin.

### Etiology

- Damage to the pilosebaceous units can cause these cysts
- Epidermoid inclusion cysts may also complicate penetrating trauma to the skin, such as a prick by a sewing needle, which can result in the implantation of squamous epithelium in the dermis



### Treatment

- Surgical excision with narrow margins

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Case 6

## Deep Ulceration on the Nose

An 88-year-old female developed a deep ulceration on her nose. She has been diagnosed with Alzheimer's disease and a congestive heart problem. Upon further questioning, the family stated that her problem started approximately one year ago. At first, a small, white asymptomatic papule occurred. The small nodular lesion extended peripherally in an irregular pattern, and a few months later, the centre of the lesion ulcerated and crusted but did not bleed. Because of her medical condition, her family decided not to start with any investigations or therapy.

### What is your diagnosis?

- a. Basal cell carcinoma (BCC)
- b. Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC)
- c. Squamous cell carcinoma
- d. Keratoacanthoma

### Answer

The answer is basal and squamous cell carcinoma (**answer b**). Basal cell carcinoma (rodent ulcers) is the most common form of skin cancer and is seen typically on the face in elderly or middle-aged subjects. It arises from the basal keratinocytes of the epidermis and is locally invasive, but it very rarely metastasizes. A lesion is often present for two or more years before the patient seeks advice. SCC is a malignant tumour derived from keratinocytes that usually arises in an area of damaged skin. It mainly occurs in people over 55-years-of-age, is more common in males than females, and may metastasize.



It is essential that all tumours are biopsied for diagnosis and treatment. BCC and SCC usually develop in sun exposed sites, such as the face, neck, forearms, and hands.

The most appropriate treatment for BCC depends on its size, site, and type and on the age of the patient. If possible, complete excision is the best form of treatment. If excision is difficult or not possible, incisional biopsy and radiotherapy are suitable for those aged 60 and over. Large tumours around the eye and the nasolabial fold require Mohs microsurgery. For squamous cell carcinoma, the choice of therapy should be made by a dermatologist in collaboration with a radiation therapist and a surgeon.

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Case 7

# *Umbilical Bulge in an Infant*

A two-month-old male infant is brought to the office for a checkup. An asymptomatic bulge at the umbilicus is noticed during examination. Otherwise, he is feeding well, and his weight is normal for his age.

### *What is your diagnosis?*

- a. Ascites
- b. Umbilical hernia
- c. Umbilical granuloma
- d. Umbilical polyp

### *Answer*

Umbilical hernias (**answer b**) are common in infants. They occur when the umbilical ring, a fascial opening that allows the passage of umbilical vessels from mother to fetus, does not close spontaneously. Complete closure occurs in almost all children by age five and many umbilical hernias resolve before a child's first birthday. This may take longer in dark-skinned children.

Umbilical hernias are generally asymptomatic. Rarely, hernias containing bowel can interfere with feeding. An umbilical hernia is more prominent and noticeable with increased intra-abdominal pressure when a baby cries. Umbilical hernias are easily reducible and rarely incarcerated.

Conditions that can be associated with umbilical hernia include hypothyroidism, Down syndrome, trisomy 18, Ehlers-Danlos syndrome, and Beckwith-Wiedemann syndrome.



Moreover, In the majority of cases, observation alone is sufficient, as the natural course of umbilical hernia is spontaneous closure. The need for surgery is rare. Incarceration (demonstrated by symptoms of pain, vomiting, tender hernia site with colour change) is an absolute indication for emergency surgery. Children with big hernias, whose umbilical ring defect does not reduce in size in two years, generally require surgical closure.

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