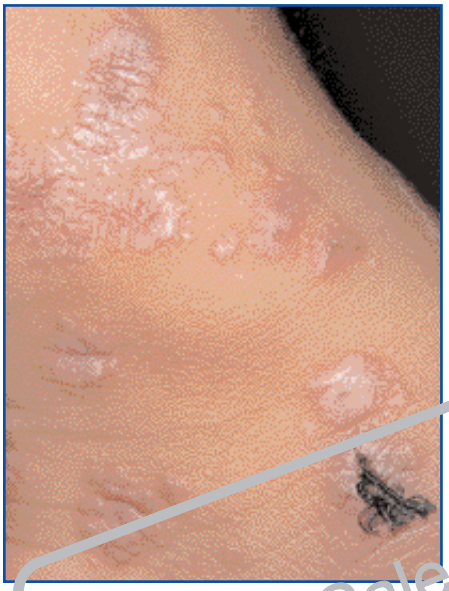
*Illustrated quizzes on problems seen in everyday practice*

**Cases this month**



## Case 1: Diffuse Plaques



A six-year-old male presents with diffuse purple plaques affecting his legs and arms.

### Questions

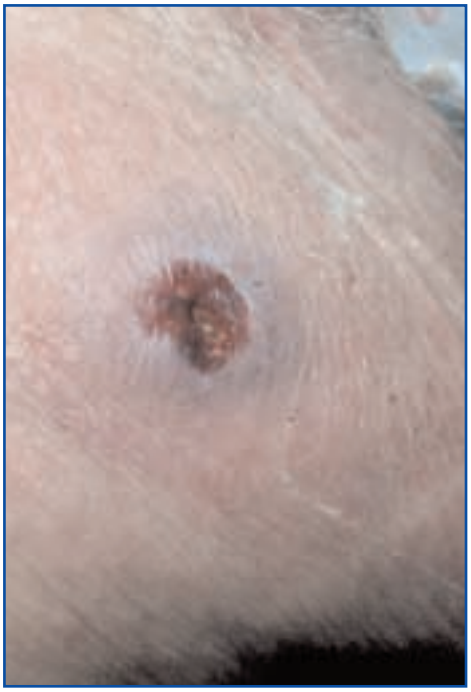
1. What is your diagnosis?
2. What are the different subtypes of this condition?
3. How do you treat this condition?

### Answers

1. Generalized lichen planus.
2. Actinic, annular, atrophic, bullous, erosive, hypertrophic, lichen planopilaris (affecting scalp) and linear.
3. The generalized form can be difficult to treat. Potent topical steroids can be tried, but more practically, phototherapy, oral retinoids, cyclosporine or systemic steroids in experienced hands should be considered.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.

# Case 2: Becoming Nodule



A 70-year-old female presents with an ulcerated, painful nodule with surrounding erythema. The nodule began seven days ago as a small red papule. The papule progressed to a blister, which spontaneously ruptured and evolved into the nodule.

## Questions

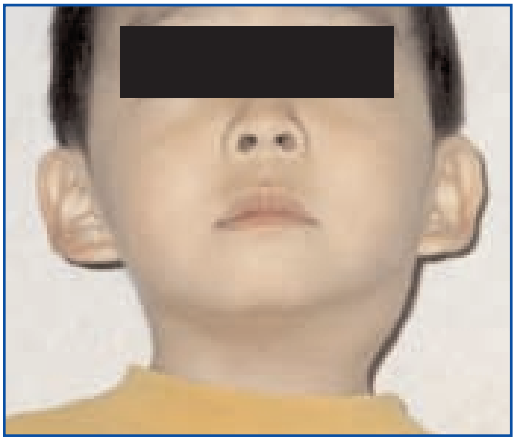
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

## Answers

1. Ecthyma.
2. Ecthyma is a dermal infection that is usually caused by *Streptococcus pyogenes*. Occasionally, it may be caused by *Staphylococcus aureus*. *Staphylococcus aureus* is often a secondary pathogen. The lesion usually begins as a vesicle, vesicopustule, or bulla, which eventually ruptures to form an ulcer. The ulcer often has a punched-out appearance with a necrotic base and raised borders. The lesion is very painful and is more commonly found on the buttocks and lower extremities. The lesion is slow to heal and produces scarring. Predisposing factors include trauma, old age, poor hygiene and immunocompromised states.
3. Mild lesions can be treated with topical antibiotics, such as mupirocin. More severe lesions may require systemic antibiotic treatment. Local wound care, such as removal of eschar and frequent cleansing may aid healing.

Provided by Dr. Alex H.C. Wong and Dr. Alexander K.C. Leung, Calgary, Alberta.

# Case 3: Painful Mass



A four-year-old male presents with a painful left cervical mass, which has been present for two days.

## Questions

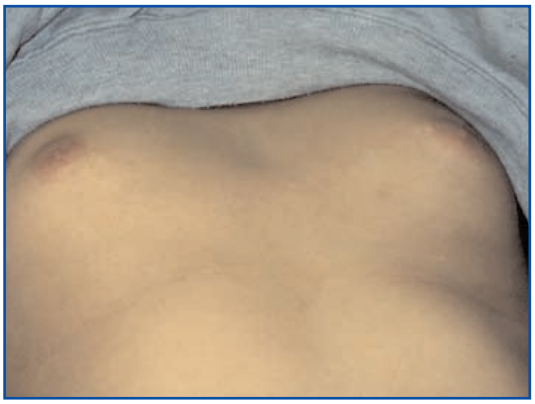
1. What is your diagnosis?
2. What is the treatment?

## Answers

1. Acute unilateral cervical lymphadenitis is usually bacterial in origin and is often caused by group A β-hemolytic streptococci or *Staphylococcus aureus*. Anaerobic bacteria can cause unilateral cervical lymphadenitis, usually in association with dental caries and periodontal disease. Group B streptococci and *Haemophilus influenzae* Type B are less frequent causal organisms. In contrast, acute bilateral cervical lymphadenitis is usually caused by a viral upper respiratory tract infection.
2. The treatment of acute bacterial cervical lymphadenitis without a known primary infectious source should provide adequate coverage for both *Staphylococcus aureus* and group A β-hemolytic streptococci. Appropriate oral antibiotics include clindamycin, cloxacillin or cephalexin. When a primary source of infection is identified, therapy should be directed empirically against the micro-organism most frequently associated with that source, pending the results of the culture and sensitivity tests.

Provided by Dr. Alexander K.C. Leung and Dr. C. Pion Kao, Calgary, Alberta.

# Case 4: Premature Development



An eight-year-old female presents with a five-month history of progressive breast enlargement. There are no other secondary sexual characteristics.

## Questions

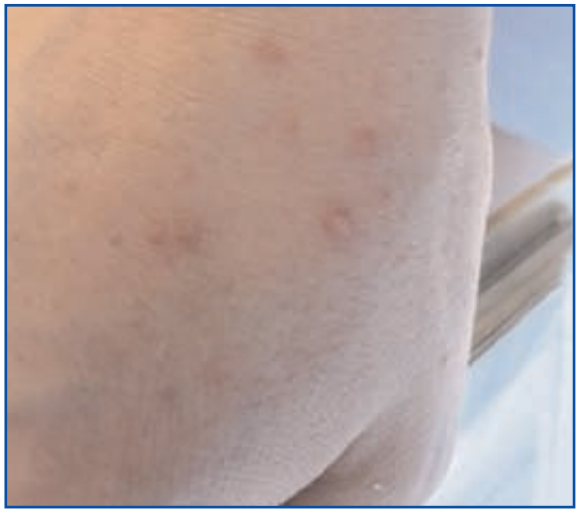
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

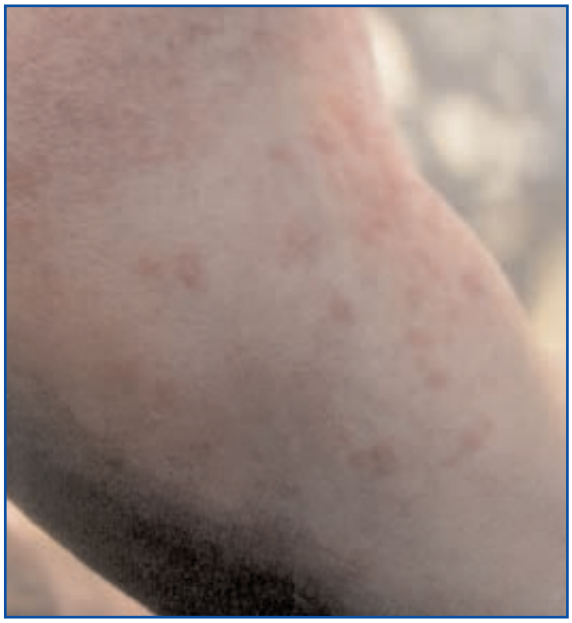
## Answers

1. Premature thelarche.
2. Premature thelarche refers to breast development that occurs without additional signs of sexual maturation in children younger than eight years. Enlarged breast tissue may be tender, but usually the tenderness is transient. Growth and osseous maturation are normal. Menarche occurs at the usual age and the patterns of adolescent sexual development and function are normal.
3. Since enlargement of breasts may be the first sign of pseudoprecocious or of true puberty, a prolonged period of observation and monitoring of other pubertal events and linear growth is indicated in all instances.

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

# Case 5: Sun Spots





A 29-year-old, otherwise healthy, female presents with a three day history of confluent papules and vesicles on her elbows and the dorsal surfaces of her hands and feet after several days of sun exposure in Jamaica. There was edema, tingling and intense pruritus in the involved areas. The lesions spontaneously resolved within a few days after her return to Canada.

## Questions

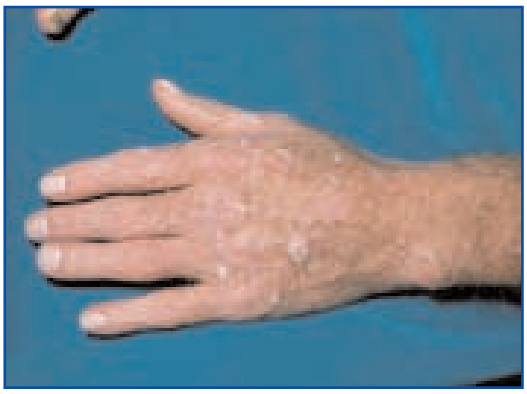
1. What is your diagnosis?
2. What is the significance?
3. What is the treatment?

## Answers

1. Polymorphic light eruption.
2. Polymorphic light eruption usually occurs hours to days after prolonged exposure to intense sunlight. There is a slight female predominance for this condition. The peak age of onset is during the second and third decades. The lesions may take the forms of erythematous papules, macules, vesicles or plaques. The lesions are pruritic. Interestingly, the type of lesion is always monomorphic and consistent in each individual. Any exposed area is susceptible, although the lesions are more often seen on the extremities and upper cheeks. Areas of involvement tend to be symmetrical.
3. Polymorphous light eruption usually responds to sun avoidance, use of broad-spectrum sunscreens and protective clothing. More severe cases may require treatment with corticosteroids.

Provided by Dr. Alex H.C. Wong, Dr. Stefani Barg, and Dr. Alexander K.C. Leung, Calgary, Alberta.

## Case 6: Renal Lesions



This renal transplant patient has developed multiple lesions on his hands and forearms.

### Questions

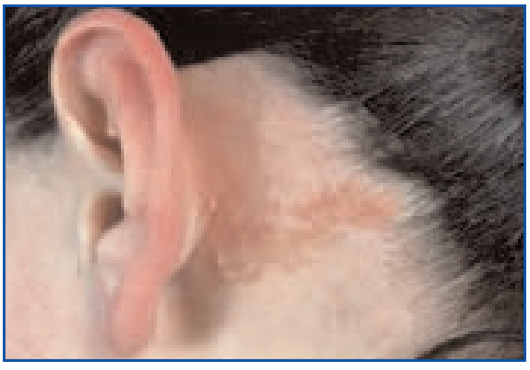
1. What is your diagnosis?
2. What is the cause?
3. What is the treatment?

### Answers

1. Multiple warts, actinic keratoses and a squamous cell carcinoma.
2. Renal transplant patients are immunosuppressed and are prone to viral infections, as well as premalignant and malignant lesions.
3. Cryotherapy. The squamous cell carcinoma should be surgically excised.

Provided by Dr. Rob Miller, Halifax, Nova Scotia.

## Case 7: Malignant Potential



Since birth, this 10-year-old male has had this lesion on his scalp.

### Questions

1. What is your diagnosis?
2. Is there any malignant potential with this lesion?
3. What is the treatment?

### Answers

1. Nevus Sebaceous. This is an appendageal tumour of sebaceous differentiation.
2. Approximately 10% of cases will eventually develop a basal cell carcinoma within the lesion. Other malignant tumours have also been reported arising from this lesion.
3. Surgical excision is usually done in the teenage years.

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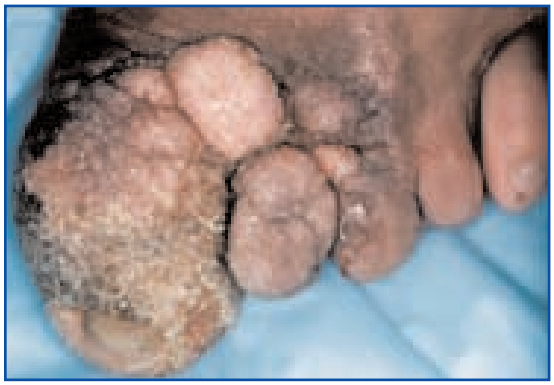
Provided by Dr. Rob Miller, Halifax, Nova Scotia.

# Case 8: Chronic Stasis Ulcers



For many years, this 65-year-old female has had problems with chronic stasis ulcers and repeat episodes of cellulites.

## Questions

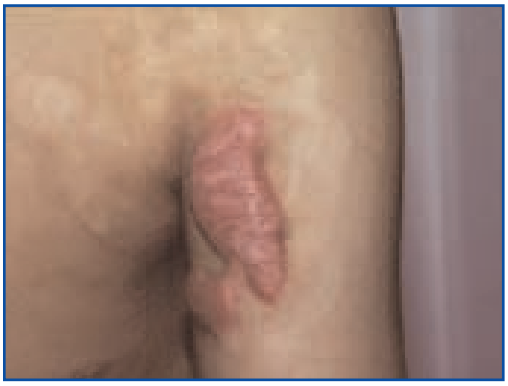
1. What is your diagnosis?
2. What is the cause?
3. What is the treatment?

## Answers

1. *Elephantiasis Nostra Verrucosa*.
2. Chronic lymphedema as a result of her chronic stasis ulcers and recurrent infection.
3. Treatment is difficult for patients with this condition. They have multiple portals of entry for bacteria and, therefore, are prone to recurrent infection. Many patients require long-term antibiotic therapy to prevent cellulitis. Antibacterial cleansers may be beneficial in controlling bacterial counts. Diligent attention to keeping the areas dry is also extremely important.

Provided by Dr. Rob Miller, Halifax, Nova Scotia.

# Case 9: Unwanted Lesion



A 22-year-old male has developed a lesion on his arm, where he suffered second and third degree burns three years previously.

## Questions

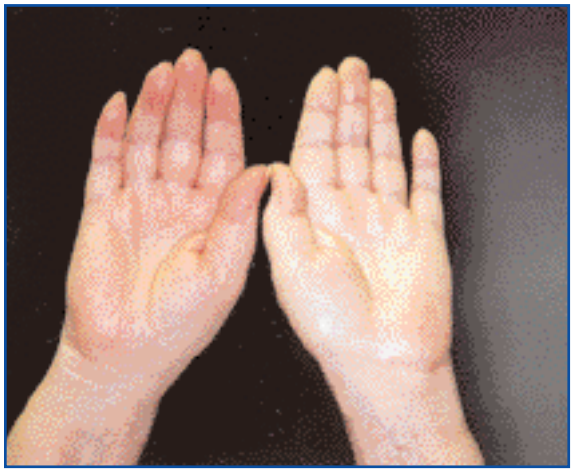
1. What is your diagnosis?
2. What is the cause?
3. What is the treatment?

## Answers

1. Keloid.
2. Excessive proliferation of scar tissue (increased collagen synthesis).
3. Treatment is far from ideal. These lesions can be quite tender and painful. Intralesional cortisone injections, once monthly, may reduce the size of the keloid and decrease some of the discomfort. Surgical excision is to be avoided in most keloids, as the recurrence rate is high.

Provided by Dr. Rob Miller, Halifax, Nova Scoatia.

# Case 10: Blue & Cool



A 75-year-old female presents with a long history of hypertension, diabetes, dyslipidemia and overweight. During her physical examination, it was difficult to feel her left radial pulse. Her left hand is noticeably pale and cool in the fingertips compared to her right hand, when both hands are raised. There are no carotid bruits. She has not smoked in more than 10 years. She has never had a heart attack or a stroke. She doesn't have any calf claudication and she doesn't appear to be restricted in her mobility. She is already receiving BP, diabetic and cholesterol medications. She is essentially asymptomatic. Her BP is 130/60 in the right arm and 80 systolic by Doppler in the left arm. When she holds her left hand down, both hands are warm and the same colour.

## Questions

1. How would you manage this patient?
2. What is the possible diagnosis?
3. What is the treatment?

## Answers

1. Vascular surgeon assessment, re-check blood chemistry and left arm Doppler should be performed.
2. Obstruction in the circulation of left subclavian artery.
3. Reduce weight with regular exercise, gain better control of diabetes, continue with more aggressive risk-factor management for arterial sclerosis and more frequent office visits for blood control.

Provided by Dr. Jerzy Pawlak and Dr. T.J. Kroczak, Winnipeg, Manitoba.

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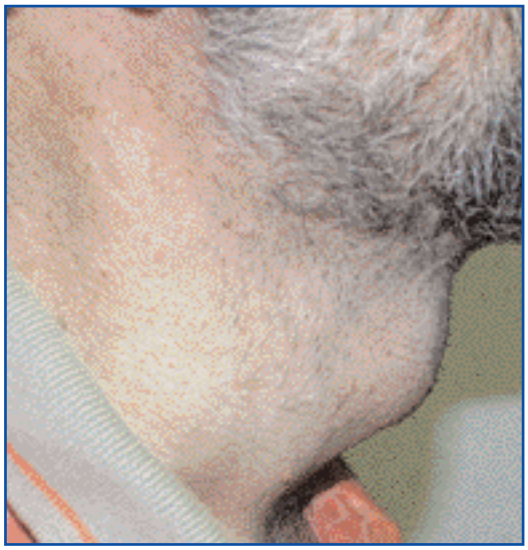
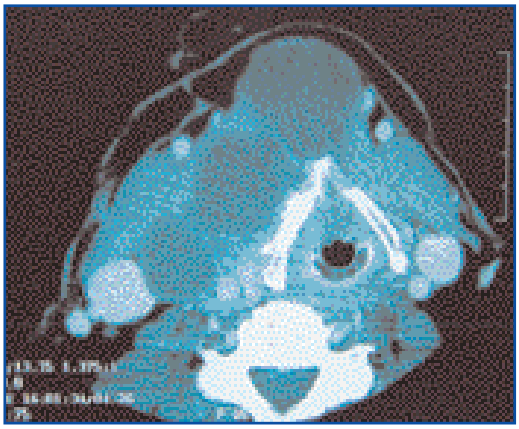
# Case 11: Neck Mass





A 67-year-old male presents with a soft midline neck mass. A CT scan of his neck was performed.

## Questions

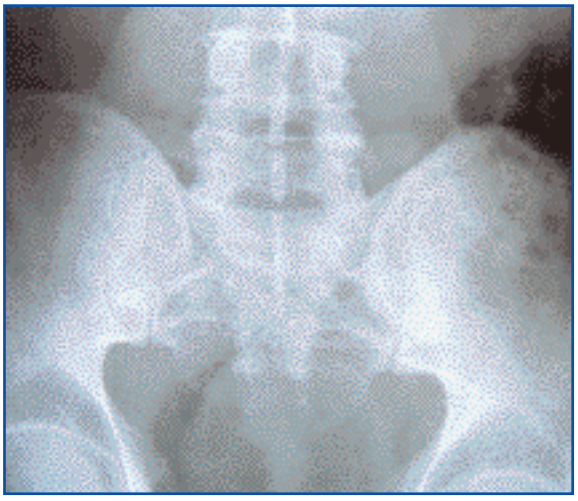
1. What does the CT scan show?
2. What is the differential diagnosis?

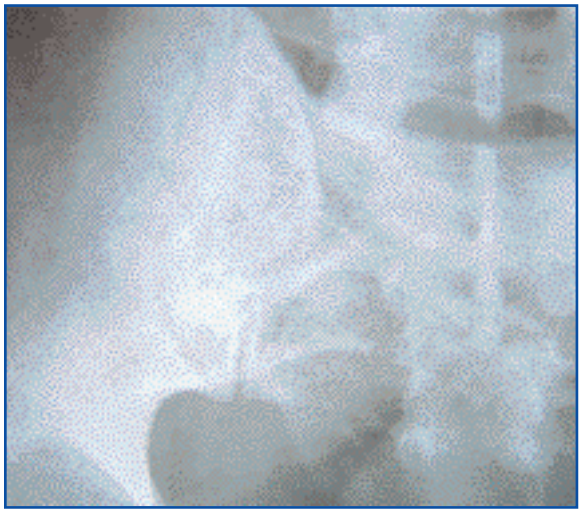
## Answers

1. There is large multiloculated cyst in the central region of the thyroid gland's right lobe. The mass extends inferiorly to the level of the sternal notch and extends anteriorly into the region of the strap muscles and into a subcutaneous location anteriorly in the midline. The mass extends superiorly on the right, almost to the level of the hyoid bone. The mass is located deep to the right sternocleidomastoid muscle and just anterior to the right carotid sheath. There is some splaying of the right internal jugular vein and right carotid artery by the lesion. Although the mass does appear predominantly cystic and multiloculated in nature, there is a solid enhancing component of the lesion more centrally along one of its septations. There is some mass effect with displacement of the trachea and airway from right to left. There is no definite evidence of lymphadenopathy.
2. Lymphangioma, cystic thyroid mass and branchial cleft cyst.

Provided by Dr. Jerzy Pawlak and Dr. T. J. Kroczak, Winnipeg, Manitoba.

# Case 12: More than Pain





A male presents with a long history of back pain. An X-ray of lumbosacral spine is done.

## Questions

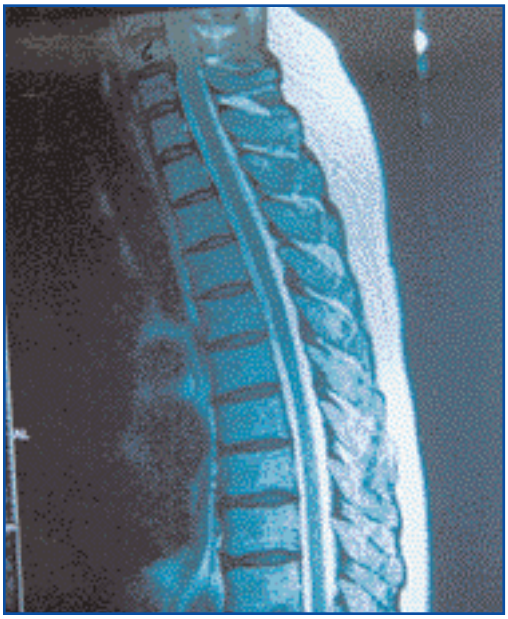
1. What is your diagnosis?
2. What does the X-ray show?
3. What is the significance?

## Answers

1. The findings would be consistent with Paget's disease.
2. There is increased sclerosis and cortical thickening of both iliac bones and also the sacrum.
3. Approximately 70% to 90% of patients with Paget's disease are asymptomatic; however, a minority of patients experience a variety of symptoms, including bone pain (the most common symptom), secondary osteoarthritis (when Paget's disease occurs around a joint), bony deformity (usually bowing of an extremity), excessive warmth (from hypervascularity) and neurologic complications (caused by the compression of neural tissues).

Provided by Dr. Jerzy Pawalk, Winnipeg, Manitoba.

## Case 13: Snowy Discomfort



A 51-year-old female developed pain over the lower end of the scapular region shortly after shovelling snow. An MRI was performed.

### Questions

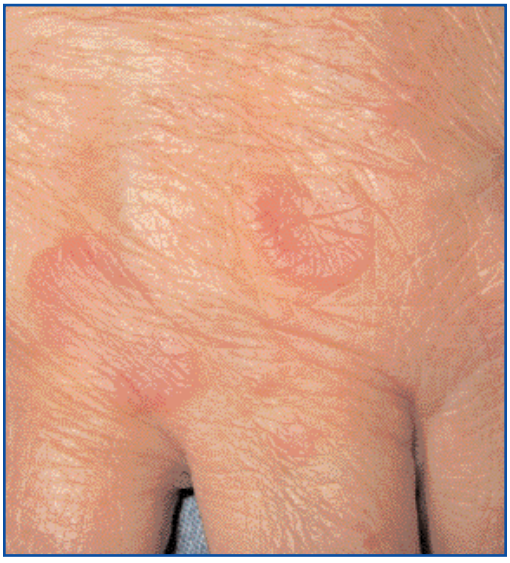
1. What does the MRI show?

### Answers

1. At C6-C7 level, there is mild spinal canal narrowing but no significant spinal cord or nerve root compression.

Provided by Dr. Jerzy Pawlak, Winnipeg, Manitoba.

## Case 14: Dorsal Plaques



A 55-year-old female presents with slightly pruritic plaques on her dorsal hands and ankles.

### Questions

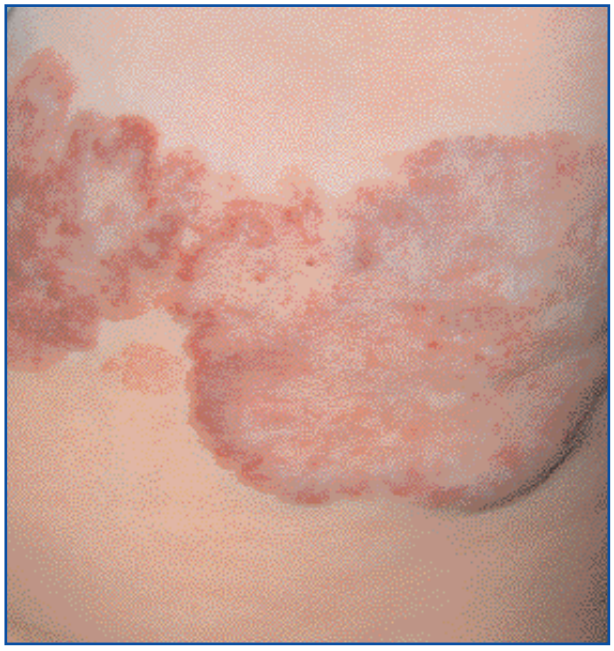
1. What is your diagnosis?
2. What are the different types of this lesion?
3. How would you treat this lesion?

### Answers

1. Granuloma annulare.
2. Localized, generalized, subcutaneous and perforating are most commonly noted.
3. Reassure the benign nature of the plaques. Consider potent topical or intralesional steroids. Cryotherapy can be tried, as can oral retinoids or phototherapy.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.

# Case 15: Fading, Red Plaque



A two-year-old female presents with a large red plaque that has been present from one month of age. The plaque has recently developed central fading.

## Questions

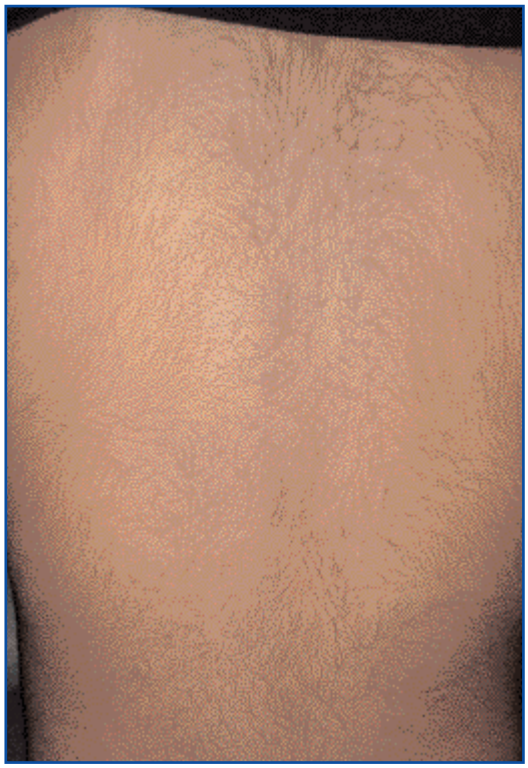
1. What is your diagnosis?
2. What are some secondary problems that can develop as a result of these lesions?
3. How can most of these lesions be managed?

## Answers

1. Hemangioma of infancy/infantile hemangioma (Strawberry hemangioma).
2. Infections, ulceration, intermittent bleeding, visual or airway obstruction, platelet sequestration and psychosocial sequelae.
3. Assuming there are no obstructions of vital structures, most hemangiomas can simply be observed, since roughly 50% resolve by age five, and 90% by age nine. Ultrapotent topical or intralesional steroids, as well as topical imiquimod can also be tried in problematic hemangiomas. Some lesions will benefit from laser or surgery if there is any residual telangiectases or loose skin.

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.

# Case 16: Excess Hair Growth



A five-year-old female on cyclosporine for juvenile rheumatoid arthritis presents with excess hair growth on her trunk, limbs and forehead.

## Questions

1. What is your diagnosis?
2. What are other drugs that can cause this problem?
3. How do you treat the condition?

## Answers

1. Hypertrichosis, secondary to cyclosporine.
2. Testosterone, danazol, anabolic steroids, phenytoin, minoxidil, streptomycin, penicillamine, high-dose corticosteroids, phenothiazines and acetazolamide.
3. Assuming the underlying medication is needed and cannot be switched to another immunosuppressant, patients bothered by their hypertrichosis can shave, pluck, wax, use threading or laser hair removal. Dx

Provided by Dr. Benjamin Barankin, Edmonton, Alberta.