Read Item - Dissecting Cellulitis of the Scalp

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Abstract: Doctor's resource on Dissecting Cellulitis of the Scalp

Dissecting Cellulitis of the Scalp

Definition
This rare condition is also known as perifolliculitis capitis abscedens et suffodiens. It manifests with a perifolliculitis of the scalp with deep and superficial abscess in the dermis, sinus tract formation and extensive scarring.

Epidemiology
Dissecting cellulitis of the scalp is rare and occurs predominantly in males aged between 18 and 40 years, and is seen most commonly in dark skinned races. Familial cases are exceptional, as is childhood onset.

Aetiology
The aetiology of this inflammatory condition is unknown, and while staphylococci, streptococci and pseudomonas may be cultured from various lesions, however no specific organism has been isolated.

Pathogenesis
The condition is of unknown origin, but clusters with hidradenitis suppuritiva and acne conglobata in the follicular occlusion triad. This suggests that apocrine gland dysfunction is involved in the pathogenesis of this disorder.

Clinical features
Painful, firm, skin coloured nodules develop near the vertex of the scalp and later become softer and fluctuant. Confluent nodules form tubular ridges with an irregular cerebriform pattern, on a red and oedematous background. Thin blood stained pus exudes from crusted sinuses, and pressure on one region of the scalp may cause discharge of pus from a neighbouring intercommunicating ridge. Cervical adenitis is present in some cases, but is more remarkable for its absence in many others. Progressive scarring and permanent alopecia occur. Characteristically hair is lost from the summits of these inflammatory lesions and retained in the valleys. Fatal squamous cell carcinoma has developed within the areas of scarring after many years.

Pathology
Histology shows a perifolliculitis with a heavy infiltrate of lymphocytes, histiocytes and polymorphonuclear cells. Abscess formation results, and leads to destruction initially of the pilosebaceous follicles and eventually the other cutaneous appendages. Keratin fragments induce a granulomatous reaction with foreign body giant cells, lymphoid and plasma cells. Special stains for bacteria, fungi and mycobacteria are negative.

Investigation
Culture from affected areas often grows bacterial organisms. Fungal cultures and a scalp biopsy for routine histology and direct immuno-fluorescence will exclude other causes of scarring alopecia.

Differential Diagnosis
Clinical differential diagnoses include kerion, pyoderma gangrenosum and erosive pustular dermatosis of the scalp.

Associated Features
Other disorders of the follicular occlusion triad may be present and there may be an

associated pilonodal sinus (the follicular occlusion tetrad) or spondyloarthropathy. An asymmetrical peripheral and axial arthritis occurs with sacro-ileitis in 73%. The activity of the arthritis parallels the activity of the skin.

Prognosis
The condition is chronic with frequent acute exacerbations.

Treatment
Although systemic antibiotics and topical or intralesional corticosteroids are sometimes helpful, relapses are frequent and the course is usually protracted. Isotretinoin in full dosage (1mg/kg) in combination with prednisolone (1mg/kg) and erythromycin 500mg qid may induce a rapid remission and significant hair growth in areas not yet irreversibly damaged. Because the inflammation is predominantly perifollicular, a surprising amount of regrowth may occur. The antibiotics can be stopped after four weeks and the prednisolone gradually weaned and replaced by topical steroids. The isotretinoin should be continued for at least six months and reintroduced if the condition relapses. In recalcitrant cases widespread excision and grafting may be considered, or alternatively in an older patient, X-ray epilation has been used with success.

Key Points
A rare chronic suppurative disease of the scalp producing widespread areas of cicatricial alopecia. It is idiopathic and usually occurs alone, but may be associated with acne conglobata and hidradenitis suppuritiva as part of the follicular occlusion triad.