



Acne necrotica

Acne necrotica or folliculitis necrotica are present in adults as pruritic or painful follicular papules (small, solid, usually inflammatory elevations of the skin that do not contain pus) or follicular papulopustules. These papules characteristically develop a central mark or depression resembling a navel (umbilication) and a round adherent crust. Men appear to be more prone to acne necrotica than women. The frontal and parietal scalp is characteristically involved, but it is not unusual to find the sebaceous regions of the face, neck and chest, where there is over activity of the sebaceous glands, are also affected.

Crops of pin-head to pea sized pustules appear in the early stages of acne necrotica. These pustules may be itchy, reddish brown papules or in the form of papulopustules. The pustules gradually umbilicate, and then undergo chronic necrosis (death of cells or tissues), leaving round hemorrhagic crusts that are shed a few weeks later.

This process results in “punched out” depressed scars, which appear as focal areas of cicatricial alopecia when terminal hair-bearing areas are affected. A few lesions typically appear with each outbreak. Reportedly, summer heat can cause aggravation of the condition. Scars that appear perforated like a sieve cause cosmetic disfigurement when the disease reaches chronic proportions.

Acne necrotica differential diagnosis

Most scarring alopecias exhibit overlapping features and it is not easy for the dermatologist

to differentiate all the clinical and morphologically distinctive variants of scarring alopecia, leading to misdiagnoses. A clear understanding of the clinical and histological presentation of acne necrotica is crucial to the diagnosis.

Early stages of acne necrotica may be difficult to differentiate from conventional folliculitis due to overlapping of features. Neurotic excoriations, acne necrotica miliaris, folliculitis decalvans, eczema herpeticum, conventional folliculitis, and molluscum contagiosa should be differentiated from acne necrotica varioliformis. Acne necrotica miliaris is not associated with exclusive involvement of the anterior portion of the scalp. Neurotic excoriations are lesions produced by patients because of repetitive skin picking. Eczema herpeticum patients often present with clusters of umbilicated vesicles that evolve into classic discrete "punched-out" small erosions within days. Molluscum contagiosa is growth on the skin which looks like little white pearls, caused by a group of viruses.

The early pathological findings of acne necrotica are represented by a necrotizing lymphocytic folliculitis and differ from the pattern seen in association with nonspecific excoriations, acute bacterial folliculitis, classic comedogenic acne or acnitis.

Acne necrotica pathology

When diagnosing the various forms of alopecia, skin biopsies are performed to help differentiate between skin conditions with overlapping clinical features. Sometimes, different skin conditions can look similar to the naked eye, and the additional information obtained by looking at the structure of the skin under the microscope can give valuable leads for conclusive diagnosis. The scalp biopsy is a simple procedure in which a small area of the scalp is removed after numbing anesthetic medication is administered. The site chosen for scalp biopsy is crucial to the evaluation, as the information obtained from a hair bearing site with active disease is more productive than from bald or end-stage diseased areas of the scalp. An appropriate histopathology report on scarring alopecia should note the follicular architecture; the type, location, and extent of inflammatory infiltrate; and the presence or absence of sebaceous glands.

An obliterative, suppurative (with pus), necrotic, infundibular folliculitis is the diagnostic hallmark of acne necrotica. Folliculitis is the name given to a group of skin conditions in which there are inflamed hair follicles, and folliculitis is obliterative when the natural space within the follicle is filled by fibrosis. The folliculitis in acne necrotica is primarily lymphocytic in nature in the early stages of the disease but it becomes mixed later as the disease progresses. The late pathological presentations of folliculitis decalvans, such as sinus tracts and deep hair shaft granulomas are not observed in acne necrotica.

Biopsies of early acne necrotica lesions show spongiosis or intracellular edema of the epidermis. There is also the development of multiple individual necrotic keratinocytes within the follicular sheath and adjacent epidermis with lymphocytic exocytosis. Exocytosis is the appearance of migrating inflammatory cells in the skin epidermis. In later lesions a more intense necrosis and a scaly crust is observed. These lesions are still dominated by a peripheral lymphocytic infiltrate. As the disease advances, coalescing necrosis of the adjacent epidermis and dermis occurs, culminating in a zone of destruction interspersed with fragmented bits of hair.

Acne necrotica treatment

Because only the superficial portion of the follicle is involved in early disease, regeneration of follicles and hair re-growth may be possible with early treatment intervention. Awareness of the disease, detailed history, thorough physical examination and interpretation of appropriate laboratory procedures, like a scalp biopsy, are crucial to the correct diagnostic conclusion and commencement of therapy. The documentation of research offers dermatologists a practical approach to diagnosis, insight into the possible mechanisms of various forms of alopecia, as well as a therapeutic updates. Favorable degrees of improvement in acne necrotica have been noted with the following methods:

- Oral tetracyclines, anti staphylococcal agents and anti bacterial shampoos can provide relief.
- Use of isotretinoin, a chemical compound that inhibits the secretion of sebum, in case of

propinibacterium acnes or in severe, recalcitrant cases can lead to prolonged remission.

- Simultaneous treatment of localized areas of the body suspected to be bacterial carriage areas with topical antibiotics has also contributed to positive results.

Acne necrotica, also known as folliculitis necrotica, 'acne varioliformis' or 'acne frontalis' is a severe form of scalp folliculitis in which larger follicular spots become inflamed then develop blackened crusts, finally leaving permanent pox-like scars. Acne necrotica may affect the face, scalp or other areas.