



THE AUSTRALASIAN COLLEGE
OF DERMATOLOGISTS

Folliculitis

What is Folliculitis?

Folliculitis means inflammation of the hair follicle. It is caused by infection, physical injury or chemical irritation. This results in a painful red spot, usually with an overlying pustule and central hair. The inflammation may be superficial or deep, and may affect all hair-bearing areas of the body.

What causes Folliculitis?

Folliculitis often occurs in moist or occluded (sweaty) areas. It is due to infection – bacterial, viral or fungal – or irritation from environmental chemicals and certain skin conditions.

Infectious causes

Bacteria

- ***Staphylococcal folliculitis*** is the most common form of bacterial folliculitis. The person is often a chronic carrier of the bacteria known as *Staphylococcus aureus*. It presents as pustules usually without fever or other symptoms.
- ***Hot tub folliculitis*** can present as red spots and pustules on the trunk and is due to an infection with *Pseudomonas aeruginosa* from improperly sanitised hot tubs or spas.
- ***Gram negative folliculitis*** is a rare pustular facial eruption, usually following antibiotic treatment of acne.

Yeasts

- ***Pityrosporum folliculitis*** presents as an itchy acne-like rash on the back and chest of young adults. Most commonly, it is caused by *Pityrosporum ovale* (also called *Malassezia*).

Fungi

- ***Tinea capitis*** or ringworm of the scalp is a fungal infection involving the hair follicles of the scalp. Usually, it presents as scaling and hair loss, but may cause more severe inflammation or folliculitis in some people.

Virus

- **Herpes simplex virus** or cold sore virus can occasionally cause folliculitis. Most commonly it affects men who experience recurrent localised facial herpes simplex infections and shave with a razor.

Parasites

- **Demodex folliculitis** is clinically similar to rosacea and is caused by the hair follicle mite *demodex*. It occurs on the faces of people whose immune system has been suppressed, usually with medication.

Environmental folliculitis

- **Mechanical folliculitis** results from chronic frictional factors. It occurs frequently in men or women who shave their faces or legs with a razor, particularly if they do so against the direction of the hairs. Occasionally, it may also be associated with the wearing of tight pants or obesity.
- **Occlusion folliculitis** results from blockages caused by exposure to topical products such as adhesives, oil, moisturisers, greases and ointments that cause swelling of the skin of the hair follicle opening. This blocks the opening and leads to inflammation.
- **Chemical folliculitis** is due to exposure to certain topical products such as coal tars and the overuse of topical medications such as corticosteroids, especially on the facial region, leading to swelling and obstruction of the follicular opening.

Folliculitis due to skin diseases

In a number of skin diseases the hair follicle is the main target of the disease process.

Acne is a common skin problem in adolescence which may target the hair follicle. Other conditions include lichen planus, discoid lupus erythematosus, folliculitis decalvans and acne nuchae keloidalis.

Follicular occlusion affects a group of conditions where the hair follicles become blocked and inflammation develops behind the blockage. The inflammation may be severe enough to lead to scarring.

- **Acne conglobata** is a severe form of inflammatory nodulocystic acne that often results in scarring.
- **Hidradenitis suppurativa** is a severe acne-like condition with a tendency to affect the skin folds and may lead to scarring in affected areas when the inflammation subsides.
- **Dissecting cellulitis** is a severe scarring form of scalp folliculitis.
- **Pilonidal sinus** is an abscess-like collection around hair follicles on the inter natal cleft between the buttocks.

Other forms

- **Buttock folliculitis** is a common problem in both men and women. The cause is unclear but it may be a form of localised acne. It can be an acute condition with painful pustules requiring oral antibiotics. It can also be chronic and require topical maintenance products to manage the condition.
- **Drug-induced folliculitis** presents as uniform red spots and pustules. It occurs more commonly in people prone to acne, within two weeks of taking certain medications such as oral corticosteroids, androgenic hormones, epidermal growth factor receptor inhibitors, lithium and some other anticonvulsants.
- **Pseudofolliculitis barbae** is a type of chronic inflammation seen in the beard area of men who shave. It mostly commonly affects men with darker skin types and tightly curled hair. As the cut hair grows, the curliness leads to the sharp point digging into the skin causing a mechanical inflammation.
- **Irritant folliculitis** occurs on the lower legs of women who shave, wax, pluck or use electrolysis for hair removal.
- **Eosinophilic folliculitis** is an itchy bumpy or pustular rash that most commonly affects the head and neck but other body sites may also be involved. It is not known why this occurs. In some cases it may be related to immune suppression, either due to medications or medical conditions such as malignancy or HIV. Rarely, it occurs in infants.

How is Folliculitis diagnosed?

A dermatologist usually makes a diagnosis of folliculitis based on the person's medical history and by examining the skin. To determine if the folliculitis is due to an infection, swabs are taken from the pustules for culture and sometimes a skin biopsy may be needed.

How is Folliculitis treated?

General measures include:

- Minimise heat, sweating, friction and constriction.
- Wear loose cotton clothing.
- Use non-comedogenic or oil free topical products to prevent making the condition worse.
- Apply recommended topical preparations by rubbing these into the skin in the direction of the hair follicles to prevent further occlusive folliculitis.

Other treatments will depend on the cause of the folliculitis. These may include:

- Antiseptic washes such as triclosan 1% or chlorhexidine 2% applied all over the body in the shower. If used regularly, this will reduce the overgrowth of normal skin bacteria that occurs in situations where the hair follicle is damaged by friction, occlusion or other skin problems and causes inflammation in the hair follicle.

- If infection is responsible for the folliculitis, then the use of topical antibiotics or other antimicrobials may be required. In severe cases oral antibiotics or appropriate antimicrobial treatment can be used. Topical keratolytic products such as alpha-hydroxy or retinoic acid may be helpful.
- In shaving related folliculitis one may consider not shaving for 3 months to prevent ingrown hairs. Alternatively, using single blade or electric razors, shaving in the direction of the hairs and using shaving creams to cleanse the area, can be helpful. The application of a keratolytic can be useful. In severe cases, a course of oral antibiotics or laser hair removal may be considered.
- In drug related folliculitis, it is important to discontinue using the medication which has been identified as causing the condition. Consultation with your prescribing doctor is essential to ensure an appropriate alternative can be introduced.

This information has been written by Dr Shyamalar Gunatheesan