

STUDIES

CHRONIC FOLLICULITIS IN SRI LANKA

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Chronic folliculitis (CF) is a chronic infection of hair follicles leading to atrophy and loss of the affected hairs. This study was done on 51 patients with CF presenting at the Dermatology Clinic at General Hospital Matara, Sri Lanka, to identify specific clinical features and aetiological factors, and to study histopathology. Pus cultures were done on 25 cases. Biopsies were done on 6 patients. CF was commoner in males (59%); 76% were under 34 years, and 39% had occupational exposure to possible irritants. Thirty five percent admitted of scrubbing legs with rough objects. Ichthyosis vulgaris was evident in 47%. All pus cultures revealed *Staphylococcus aureus*. Clinical features and histopathological features were similar to those described by Harman (1968). Rough scrubbing, ichthyosis and occupational exposure to irritants may be aetiologically relevant.

Key Words : Chronic folliculitis, Sri Lanka, Clinical features, Aetiology, Histopathology

Introduction

Chronic folliculitis (CF) is a chronic infection of hair follicles, particularly in the legs. It has a characteristic sequence of events; inflammation around the hair follicle, pustulation, atrophy of the hair follicle and eventual loss of the affected hairs. CF was first described by Clarke in Lagos, Nigeria, under the name "Dermatitis Cruris Pustulosa et Atrophicans".¹ Subsequently, it has been reported in India^{2,3} and briefly mentioned in the dermatology clinic surveys in Sri Lanka.^{4,7} Very little has been published about this condition in the Western English medical literature. It has also been termed epilating folliculitis and sycosis cruris by some.^{1,8} This study was done at the General Hospital, Matara, in the Southern Province of Sri Lanka. Our aims were to identify specific clinical features and aetiological factors and to study histopathology of this condition.

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Materials and Methods

All patients with chronic pustular folliculitis of limbs or trunk with a history of over one month's duration, presenting at the dermatology clinic at General Hospital Matara in a three month period in 1992 were studied. Detailed medical histories were recorded and clinical examinations were done by the first author. Pus cultures were done in 25 cases. Biopsies were done on 6 patients. The specimens were fixed in 10% formol saline, stained with haematoxylin and eosin (H&E) and assessed by the second author.

Results

A total of 51 cases were included in the study. Table I shows the age distribution; 76% were between 15-34 years of age. Mean age was 27.7 years. The majority

Table I. Age Distribution

Age (years)	No. of patients	%
15-24	20	39.2
25-34	19	37.3
35-44	9	17.6
45-54	3	5.9
Total	51	100.0

Table II. Occupational exposure

Exposure	Occupation	Number of patients	Percentage (%)
Cement	masons	8	15.7
Salt water and sea sand	fishermen	3	5.9
Wood dust	carpenter/saw mill worker	3	5.9
Mud, plants and fertilizer	farmers	6	11.8
Total		20	39.3

(59%) were males.

Table II shows occupational exposure to some possible irritants with the relevant occupations. Masons, fishermen, saw-mill workers, carpenters and farmers comprised 39% of the patient population.

Eighteen patients (35%) admitted of rough scrubbing with coir fibre, stones or brushes while washing. A family history of chronic folliculitis was recorded in 13.7%.

Erythema and mild oedema around follicular pustules were seen in these patients. Adjacent follicles were affected, often without much inflammation in between the follicles. There was scaling spreading peripherally from the affected hair follicles. In some, the areas of exfoliation had coalesced where adjacent follicles were similarly affected giving the appearance of diffuse scaliness. The skin of the shin area, where CF was most commonly seen in our patients, was ichthyotic, shiny and thinned out. In a few patients secondary eczematous changes had developed in the affected area, some cases also having secondary hyperpigmentation. The hairs of the affected areas (before they were lost), appeared curly and distorted. In long standing cases, after hairs were lost in the affected follicles, atrophic hyperpigmented atrophoderma like depressions were seen. It was evident that some patients experienced a "natural cure", after all the affected hairs were lost through this disease in a given area. In some patients, CF had taken a recalcitrant

course involving not only legs but also the trunk and upper limbs (13.7% had CF in other areas, in addition to legs).

Pruritus was a common symptom (84%), though mild in most cases. Associated eczema was found in 15.7% and 47.1% had ichthyosis vulgaris. Sycosis barbae was associated with CF in only one case. All our patients were otherwise in good general health. There was no evidence of immunodeficiency or diabetes mellitus.

All 25 pus cultures done revealed heavy growths of *Staphylococcus aureus*. Phage typing was not done due to lack of facilities. Where antibiotic sensitivities were done, all strains were sensitive to augmentin, gentamicin, cefuroxime and netilmycin. Some strains were sensitive while some were resistant to erythromycin and cloxacillin.

Sections of biopsy specimens of pustular lesions showed focal areas of suppuration (neutrophils and debris) and heavy inflammation around the hair follicles. The adjacent areas of the skin were heavily infiltrated with neutrophils, lymphocytes and occasional eosinophils. No fungal elements were seen. More chronic lesions, showed atrophy of the epidermis and hair follicles together with fibrosis of the dermis. In these, partial loss of dermal elastic fibres was observed with elastin stains. White blood cell counts and fasting blood sugar, whenever done, did not show any abnormality.

Discussion

Chronic folliculitis is characterized by pustular folliculitis in the early stages leading to atrophy of the hair follicles and loss of the affected hairs in the chronic stages.^{1,2}

CF is not uncommon in Sri Lanka. The author reported 2.9% occurrence at the skin clinic (1992) in Matara.⁷ Atukorala reported 1.5% at the skin clinic in Galle, also in the Southern Province, and 2.4% in Jaffna, in the Northern Province.⁵

Thirty nine percent of our patients having had exposure to possible irritants and minor trauma at outdoor occupations supports Kandhari's observation that external irritants including plants and dusts may be relevant in aetiology.² Rough scrubbing with coir fibres, brushes, stones, sea sand (fishermen) also can be regarded as a form of minor trauma facilitating entry of pathogenic bacteria through hair follicles. Perera et al also had observed that rough scrubbing appeared to predispose to CF.⁶ Natural cure of the disease by the loss of affected hairs in a given area may have been a reason for most of our patients being relatively young (mean age 27.7 years).

Harman postulated that application of oils is aetiologically relevant.¹ However, none of our patients had applied oils on the legs before the onset of CF.

Heavy growths of *Staphylococcus aureus* in all 25 pus cultures done suggests that it is the causative organism. However, it is not clear whether it is a primary invader or a secondary invader.⁹ Scratching and rough scrubbing perhaps facilitate the spread of the bacteria to the adjacent follicles. It is not clear whether staphylococcal toxins have a role to play in the loss of the affected hairs and the formation of 'depressions' at the sites of

naturally healed CF.

Clinical features and histopathology of CF in our patients were similar to those described by Harman.¹ However, we differ in that, (a) it is not limited to legs (hence, chronic atrophic folliculitis would be a better name than dermatitis cruris pustulosa et atrophicans) and (b) it is not limited to Nigeria. We are in agreement with Kandhari that it is found in other tropical countries.²

Whatever the treatment used, recurrences appear to be common in this condition.^{1,10} In our experience, minimising predisposing factors (eg, rough scrubbing) is very important for long term control of CF once the active disease is controlled with antibiotics.

In conclusion, chronic folliculitis or dermatitis cruris pustulosa et atrophicans is best termed chronic atrophic folliculitis considering its clinical features and natural history. It is commonest in young males. Ichthyosis vulgaris may be a predisposing factor. Occupational exposure to irritants and rough scrubbing may be aetiologically relevant. *Staph aureus* appears to be the causative agent.

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