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ALARMING INCREASE OF SUPERFICIAL FUNGAL INFECTION AND RESPONSIBILITY OF CONCERN AUTHORITY

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ABSTRACT

Fungal skin infections are common causes of skin disease in most age groups. They include three main diseases- dermatophytosis or ringworm infections, candidiasis, and pityriasis versicolor. Though these infections are rarely dangerous for life, they are important because of their world wide distribution. As Bangladesh is situated in the tropical region its people are susceptible to superficial fungal infection (SFI).[1] Rahman et al. (2011)[2] found 17.5% fungal infection in patients with skin ailments in rural areas of Bangladesh. In another study in Banganbandhu Sheikh Mujib Medical University Rahim et al (2012)[3] revealed *Tinea rubrum* as the most common etiological agent (80.6%) followed by *T. mentagrophytes* (8.2%) and *Epidermophyton floccosum* (5.2%). The incidence of fungal infections is increasing at an alarming rate, presenting an enormous challenge to healthcare professionals.[4] World Health Organization estimates dermatophytes affect about 25% of the world population.[5] It is also estimated that 30 to 70% of adults are asymptomatic carriers of these pathogens, and that the incidence of this disease increases with age.[5] Recently, clinical failure and relapses have been observed in patients treated with antifungals. Early recognition and treatment is essential to reduce morbidity and possibility of transmission.[5] Risk factors associated with SFI are extreme age, genetic factors, global warming, migration of laborers, increased frequency of wearing tight and synthetic clothing, obesity, poor hygiene conditions and some diseases such as diabetes mellitus and immunodeficiency.[6,7] The random abuse of topical steroid and antifungal combination creams by the patients, who mostly purchase them over the counter (OTC) or according to the advice of the practitioners is considered to be reasons for the sudden surge of this infection. If a cutaneous dermatophyte infection is initially treated with a topical corticosteroid the typical appearance of the infection may be altered making its diagnosis more difficult (ie, tinea incognito). So the use of combined antifungal and corticosteroid products that include medium or high potency corticosteroid is discouraged because corticosteroid therapy is not necessary for achieving cure and its use induces risk of corticosteroid induced skin atrophy.[8]

KEYWORDS: Superficial fungal infection, responsibility, concern authority.

INTRODUCTION

Though Bangladesh has six seasons round the year, three seasons- summer, rainy season and winterare are actually perceivable and rest three seasons go unnoticed. During summer and rainy season the temperature as well as humidity is high making these seasons favourable time for budding of fungal spore and growth of fungus on human skin. Nowadays most of the urban and semi-urban people wear heavy clothings like jeans and gaverdin pants and under-wears for a long period like 12 to 18 hours a day. Women usually wear several folds of cotton or synthetic clothes which create a hot and wet condition on the body surfaces favouring fungal growth on skin. Washing clothes, bed lilens and pillow covers are not satisfactorily hygienic. Destruction of fungal spore needs boiling. So clothing may harbour fungal growth, which may be the potential source of recurrence of SFI.[9]

The available systemic antifungal drugs are fluconazole, itraconazole, terbinafin, ketoconazole, griseofulvin. In Bangladesh, fungal culture is available but sensitivity to antifungal drugs is not widely available. So physicians cannot be sure beforehand which antifungal agent will be working effectively. Treatment with most of the drugs causes lesions resolved and patients become cure but after a period of interval that varies from 1-12 months patients come with new lesions. Physician, pharmacists and public health personnel should undertake researches immediately to find out the causes of drug resistance and recurrence of infection. Hospitals and diagnostic laboratories should enrich them to perform culture and drug sensitivity of fungus. Pharmaceutical companies

should not manufacture topical antifungal and steroid combination drugs which hamper the treatment of SFI. Antifungal shampoos are being manufactured by pharmaceutical companies but not the antifungal soaps which are imported from abroad and are sold in a high price. Local pharmaceutical companies should manufacture antifungal soap in a reasonable price.

Using protective foot wear while walking on carpets and public changing rooms, regular trimming of nails, avoidance of sharing nail clippers, discarding old mouldly foot wear, treating all affected family members simultaneously, avoidance of unhygienic pedicure and manicure, avoidane of tight-fitting clothings and use of desicaccant antifungal powders are some measure to reduce the prevalence of tineasis.

Along with the drug treatment the patients should be provided with the following directives, preferably translated in their mother tongue, so that they can understand the nature of treatment.[8]

- Bath twice a day, preferably in cold water is a must.
- Wear dry clothes, never wear wet or damp clothes.
- Clothes to be washed in hot water at (60^0C) and dried in good sunlight- inside out. If sunlight is not available, clothes dried in-doors should be ironed.
- Regular wash of towels, socks, pillow covers, bed linen and caps
- Infected clothes should be washed separately.
- No sharing of towels, soaps, clothes and bed linen.
- Regular wet mopping and vacuuming the house followed by cleaning with detergent to reduce the spore load in the environment.
- Females with extensive dermatophytosis to avoid cooking during noon, the hottest period of the day.
- Male patients with tinea cruris should wear should wear boxer shorts-type inner garments and female patients should use bikini- type inner wear.
- Regular removal of hair on genitalia should be ensured.
- Waist/wrist band should be removed.
- Strict avoidance of tight and synthetic garments (legging, jeggings, jeans), loose cotton garments should be worn.
- Strict adherence to the treatment schedule, never to apply topical steroid and antifungal combination (TSAF) creams

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