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Epidemiological and Clinical Insights into Tinea Cruris: A Dermatological Perspective on Occupational and Seasonal Variability

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Abstract

Commonly referred to as "jock itch," tineacruris is a superficial fungal infection that mainly affects the groin area. Dermatophytes, particularly Trichophytonrubrum and Trichophytonmentagrophytes, are the cause. The current information on its clinical presentation, occupational and geographic epidemiology, and risk factors is reviewed in this article. The illness is more common in tropical regions and amongpeople who work in physically demanding and sweaty environments. Research indicates that roughly 10% (3 out of 30) of people in specific high-risk occupational groups are impacted. In addition to common signs and symptoms observed in different populations, patterns of occurrence based on seasons, occupations, and environmental conditions are covered in detail.

Introduction

In dermatological practice, tineacruris is one of the most common superficial fungal infections, particularly in hot and muggy climates. Dermatophytes are keratinophilic fungi that infiltrate the stratum corneum and usually affect the buttocks, inner thighs, and groin folds. Direct skin contact or contaminated clothing or towels are the two ways that the disease is spread. Its prevalence has increased during the last fewdecades, especially in tropical areas and among those who have underlying medical conditions, poor hygiene, or excessive perspiration. Chronic cases and atypical presentations are also influenced by the misuse of topical corticosteroids.

Global and National Epidemiology

Tropical and subtropical regions have a higher prevalence of tineacruris worldwide because of the ideal climate conditions of heat and humidity, which encourage the growth of fungi. It is also common in regions of sub-Saharan Africa, Southeast Asia, and Latin America, where living conditions are cramped and access to sanitary facilities is restricted. Prevalence rates are greater in low-income neighborhoods and urban slums. The prevalence of dermatophytosis has been rising globally, and data indicates that the main causes of this increase are changes in lifestyle, improper use of over-the-counter steroid creams, and increased humidity brought on by climate change. One of the most common superficial fungal infections in India is tineacruris.

It is thought to be responsible for around 25% of all dermatophytosis cases. Several states, including Tamil Nadu, West Bengal, and Karnataka, report An According to studies, it accounts for about a quarter of all cases of dermatophytosis. There is a high incidence reported in states like West Bengal, K arnataka, and Tamil Nadu. Furthermore, prevalence is even higher in rural areas with a high prevalence of outdoor labor and inadequate hygienic facilit ies.

Clinical Manifestations and Most Common Symptoms

Patients usually complain of severe groin itching. When examined physically, the infection appears as red, ring-shaped, scaly lesions with a central clearing and an elevated border. The rash may spread to the buttocks and inner thighs. In severe cases, vesicles or pustules may appear. Common symptoms include burning, irritation, and mild pain from scratching. The following are the most commonly mentioned symptoms and indicators: Itching (pruritus), which is frequently the initial symptom Plaques or erythematous patches Skin that is scaly or dry; sharp edges with central clearing Sweating-induced skin peeling or maceration – Secondary bacterial infections or sporadic pustules.

Epidemiology by Occupation and Region

Due to excessive perspiration, tight uniforms, or extended exposure to moist environments, certain occupations have been associated with a higher incidence of tineacruris. Among them are: Workers in the military, construction, agriculture, and manufacturing Athletes and the gym-travelers Three out of thirty employees in these high-exposure occupations had active tineacruris, indicating an incidence of about an estimated 10% incidence of active tineacruris was found in a sample study of 90 people, with 3 out of 30 employees in these high-exposure occupations having the condition. Male

employees who wear tight clothing and have limited access to restrooms during work hours are especially susceptible to contracting the infection. Higher incidence is reported during the summer and monsoon seasons in areas with high temperatures and relative humidity, such as South India and portions of Central and Eastern India. The main contributing factors during these times are sweat buildup and inadequate ventilation around the groin area. Three out of thirty employees in these high-exposure occupations had active tineacruris, indicating an incidence of about 10% in a sample study of ninety people. Male employees who wear tight clothing and have restricted access to restrooms during work hours are especially susceptible to contracting the infection. Instances are higher during the summer and monsoon seasons in areas with high temperatures and relative humidity, such as South India and portions of Central and Eastern India. Two major contributing factors during these times are sweat buildup and inadequate ventilation surrounding the groin area

Seasonal Influence

Tineacruris exhibits a distinct seasonal pattern, with summer and monsoon seeing a sharp increase in cases. This is explained by the fact that during these seasons, people sweat more and keep their skin folds moist for longer. In contrast, because of the lower humidity and colder temperatures, the incidence is reduced during the winter. However, cases continue all year long in tropical areas that are consistently warm and humid, though they still peak in the middle of the year.

Risk Factors

Tineacruris can develop and recur due to a number of risk factors. Among them are: Hyperhidrosis, or excessive perspiration Obesity: Folds in the skin retain perspiration and make a person more vulnerable. Poor hygiene: Reusing or washing contaminated clothing infrequently. Diabetes mellitus: Skin abnormalities and weakened immunity. – Immunosuppression: steroid therapy or HIV/AIDS. Sweat is prevented from evaporating by tight or synthetic clothing. Shared amenities include gyms, sports equipment, and showers. Abuse of topical steroids can result in persistent infections and incorrect diagnoses.

Conclusion

People in tropical regions are disproportionately affected by tineacruris, a common fungal skin infection, especially those who work in physically demanding and damp environments. The disease is characterized by pruritus, redness, scaling, and discomfort in the groin region. Clinicians can anticipate outbreaks and put preventive measures into place by having a thorough understanding of its seasonal trends, occupational risk, and related comorbidities. The burden of this avoidable infection can be lessened by raising public awareness of proper hygiene and using antifungal drugs sparingly.

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