

Case Report**“UNUSUAL PRESENTATION OF TINEA CORPORIS DUE TO TRICHOPHYTON MENTAGROPHYTES: A CASE REPORT”****R.Sujatha¹, Nidhi Pal², Priya**

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ABSTRACT: Tinea corporis is a subacute or chronic dermatophytosis. This is a case report of a 40 year old female presenting with a history of erythematous lesion with itching. On the basis of clinical findings, the lesions were diagnosed as Tinea corporis, by using mycological examinations; dermatophytosis caused by Trichophyton mentagrophytes was confirmed. The patient was successfully treated with itraconazole.

Key words: Tinea corporis, Trichophyton mentagrophytes

INTRODUCTION

Tinea corporis is a frequent dermatophytosis in asia and it has been spread throughout the world.^[1] Tinea corporis is a localized cutaneous dermatophyte infection of dermal and subcutaneous tissue. This is very prone in immunocompromised patients and Trichophyton rubrum is the most common agent.^[2] Trichophyton is a fungi that cause skin disease in people and animals. T.mentagrophytes can cause a series of infections that affect the feet, face and body.^[3] Here we presented a unusual case of Tinea corporis due to T.mentagrophytes in

40 year old immunocompetent female patient.

CASE REPORT

A 40-year-old women presented erythema with itching of the whole body for the past 1 to 2 years. Clinically the lesions were diagnosed as Tinea corporis [Fig1&2], the lesions were extensively progressive. After treatment failure, she came to the Dermatology department of Rama Hospital, Kanpur. The patient had neither history of immune disorder like diabetes and tuberculosis nor genetic disorder.



Fig 1 : Erythematous lesion



Fig 2 Septate fungal hyphae seen in KOH mount



Fig 3 Tinea corporis on SDA medium

Routine laboratory analyses of blood, screening of viral markers and urine samples revealed no abnormalities. On skin scraping examination, direct microscopic examination of keratotic materials from skin lesions mounted in 10% potassium hydroxide (KOH) revealed a few fungal elements like fragments of septate hyphae and arthroconidia.

Samples were also cultured on Sabouraud's dextrose agar containing chloramphenicol (Himedia) at 25°C and 37°C for 4 weeks. After 2 weeks, the developing colonies were like dermatophytes white-to-cream in color and powdery colonies. Reverse pigmentation was yellow-to-brown color. [Fig 2] Slide culture was also done and on lactophenol cotton blue (LPCB) staining microconidia and macroconidia were seen.

Predominantly small spherical microconidia and number of spiral hyphae were seen on microscopic examination. [Fig 3] Isolated fungi also gave urease positive result. Hence *T. mentagrophytes* was reported by microscopic, macroscopic examination and urea hydrolysis test. After reporting patient was treated with itraconazole and local drying solution. After a week erythematous lesion showed slight improvement.

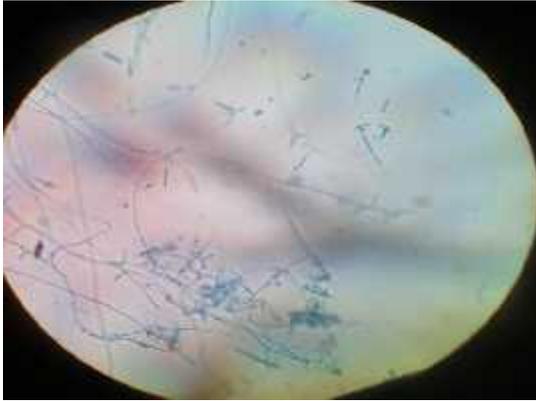


Fig 3: Macro- and microconidia along with coil hyphae of Trichophyton mentagrophytes (lactophenol cotton blue mount)

Discussion and Conclusion

Dermatophytes are a group of fungi that having capacity to invade keratinized tissues (skin, hair and nails) of humans and other animals to cause acute and chronic dermatophytosis. It is prevalent throughout the world, it depends on habits and living conditions of people.^[2] The severity of dermatophyte infection may range from mild to severe as a consequence of the host's responses to the metabolic products of the fungus. The dermatophytes have distinct clinical manifestation in different parts of body. Tinea corporis is a disease of non hairy skin and disease is characterized by erythematous scaly lesion, sharply

marginated plaques.^[2] The infection of the crural area is frequently caused by *T. rubrum*.^[4,5] Clinically Tinea corporis are being reported particularly in HIV-positive patients or immunocompromised patients. Tinea corporis, mainly caused by *T. rubrum*^[2] but in this case study *T. mentagrophytes* were isolated from Tinea corporis lesion. And the patient had no history of immunocompromised disease. Mycological examination was performed; initially KOH mount show only fungal elements such as septate hyphae but LPCB mount from growth on SDA with chloramphenicol revealed *T. mentagrophytes* was isolated from the lesions. Antifungal itraconazole was prescribed to the patient, which was effective in suppressing the growth of *T. mentagrophytes*.

REFERENCES

1. David Ellis, Stephen Davis et al. Descriptions of Medical Fungi, Second Edition. Mycology Unit Women's And Children's Hospital, School Of Molecular & Biomedical Science, University Of Adelaide, Adelaide, Australia, 2007

2. Dr.Jagdish Chander. Textbook of Medical Mycology, 3rd edition. Mehta publication, 2011
3. Trichophyton mentagrophytes Fact Sheet.
www.infectionpreventionresource.com
4. Fitzpatrick TB, Johnson RA, Wolf K, Polano MK, Suurmond D. Color Atlas and Synopsis of Clinical Dermatology, 3rd edition. McGraw-Hill, Philadelphia, 1997 mycosid: Review article Part I. An Bras Dermatol.2013;88(5):764-74
5. Maria Fernanda Reis Garazzonidi et. al update on therapy for Superficial An Bras Dermatol. 2013 Sep-Oct; 88(5): 764-774.

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