(International Print/Online Journal)

SJIF IMPACT FACTOR: 5.565
PUBMED-National Library of Medicine ID-101739732

ISSN (Print): 2209-2870
ISSN (Online): 2209-2862

International Journal of Medical Science and Current Research (IJMSCR)
Available online at: www.ijmscr.com
Volume 4, Issue 5, Page No: 1595-1597
September-October 2021

IJMSCR

A Fascinating Case of Penicillium Marneffei Infection in a SLE Patient: Case Report and Its Management

Dr. Kishalay Mahajan[1], Dr. Antara Roy[2], Dr. Narendra Potsangbam[3]
[1,2]Senior Resident, [3]Senior Consultant Physician,
[1,3]Department of Medicine, [2]Department of Microbiology,
[1,2]Sikkim Manipal Institute of Medical Sciences
[3]Shija Hospitals and Research Institute, Manipur

***Corresponding Author:**
Dr. Kishalay Mahajan
Senior Resident, Department of Medicine, Sikkim Manipal Institute of Medical Sciences

Type of Publication: Original Research Paper
Conflicts of Interest: Nil

Abstract
Penicillium marneffei infection is an uncommon emerging pathogen especially in immunocompromised patients. They produce papule like umbilicated skin lesions like that of molluscum contagiosum which is a viral infection.

Keywords: Penicillium, SLE, immunocompromised

INTRODUCTION

Penicillium marneffei infection is very rare fungal infection in human body first isolated from the bamboo rat in Vietnam in 1956.1 It is commonly seen in people with HIV. But it also can present in patients with autoimmune diseases like SLE.2,3 Here we report a Penicillium marneffei infection in a patient with SLE who presented with skin lesions which is almost similar to molluscum contagiosum which is a viral infection where treatment protocol will be completely different.

Case Report:

A 35years old woman, a diagnosed case of systemic lupus erythematosis presented in medicine OPD 2018,february with the complaints of joint pain and malar rashes over her face which was subsided with course of steroid and hydroxychloroquine (HCQ) therapy, later on steroid was tapered and stopped but HCQ was continued. In the month of June, 2019 she came to casualty again with fever, cough, and multiple skin lesions. Fever was high grade and intermittent type, cough was productive in nature and there was a butterfly rash over her face. On local examination there were multiple papules like lesions with umbilication on the skin of her back and arms (Fig 1). On physical examination, blood pressure was 130/80mm Hg, pulse rate- 84/min, body temperature 40.5°C, systemic examination was normal. Results of hematologic and biochemical evaluation were as follows- white cells: 8300 in mm3, hematocrit 22.8%, haemoglobin 8.9g/dl, ESR-42mm per hour, anti dsDNA –positive, serum creatinine-0.9g/dl, serum urea-28, Urine analysis-Normal, Chest radiograph- showed pneumonic consolidation, exudates from the lesion for fungal culture in Saboraud's Dextrose Agar tubes incubated for 3 week, at 25°C obverse colony was granular in texture, yellow orange in the centre and gray-orange in the periphery with radial folds.

The reverse showed red diffusible pigment into surrounding agar of the medium.At 37°C showed pinkish-white cribriform convulated colonies (Fig 2). And on lactophenol cotton blue mount showed septate, short branched hyaline hyphae with brush like conidiophores, metulae, phialides and conidia

(Fig 3). Thus the growth suggestive of Penicillium marneffei. The patient was treated with itraconazole given in dose of 400mg/day for first 3-4 weeks and followed by 200mg/day as maintenance therapy. No recurrence seen after 9 months follow up. For pneumonic consolidation, injectable piperacillin-tazobactum 4.5g was given for 5days.

Clinical pictures:

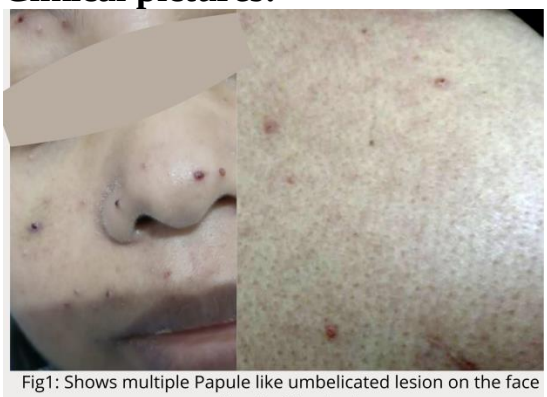

Fig1: Shows multiple Papule like umbelicated lesion on the face and back of her body

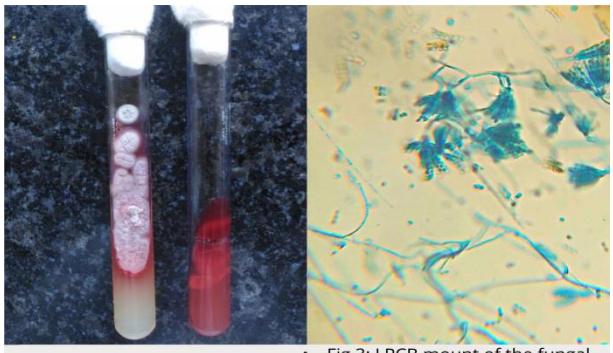

Fig2:Shows fungal culture grown in Saboraud's Dextrose Agar tubes

Fig 3: LPCB mount of the fungal culture shows septate, short branched hyaline hyphae with brush like conidiophores

Discussion:

Penicillium marneffei is a dimorphic fungi occurring in parts of South-East Asia and China.4 About 2/3rd cases are seen in immunocompromised patients suffering from SLE, AIDS or lymphoma considering it as opportunistic pathogen.5,6 Similar observations in HIV patients has also been demonstrated in this region.1 Based on previous literatures fever and cutaneous lesions are important manifestations in SLE patient with penicilliosis.7,2,8 The definitive diagnosis can be made by fungal culture. The differential diagnosis includes histoplasmosis, molluscum contagiosum, verrucous lupus erythematosus.3,9 A long term steroid therapy in SLE patient may result in immunosuppression which might happen in our patient that made her get infected with P. marneffei. This kind of infection has high mortality if not treated early.6 Previous studies has shown that single therapy with either itraconazole or amphotericin B has shown good response.10

Conclusion:

Penicillium marneffei is an emerging pathogen primarily among immunocompromised patients and should be considered as a differential diagnosis. Rapid and accurate diagnosis from appropriate clinical sample leads to successful treatment of the infection. Judicious use of cortisteroids is the need of the hour.

References:

1. P. N. Singh, K. Ranjana, Y. Indiver Singh et al., "Indigenous disseminated Penicillium marneffei infection in the state of Manipur, India: report of four autochthonous cases," Journal of Clinical Microbiology, vol. 37, no. 8, pp. 2699–2702, 1999.
2. Lo C-Y, Chan DTM, Yuen K-Y, Li F-K, Cheng KP. Penicillium marneffei infection in a patient with SLE.Lupus. 1995;4:229–31.
3. Vanittanakom N, Cooper CR, Fisher MC, Sirisanthana T. Penicillium marneffei infection and recent advances in the epidemiology and molecular biology aspects. Clin Microbiol Rev. 2006;19:95–110.
4. Deng et al. Infections caused by Penicillium marneffei in China and Southeast Asia. Review of eighteen published cases and report of four more Chinese cases. Rev Infect Dis 1988; 10: 640-652.
5. So SY et al. A case of invasive penicilliosis in Hong Kong with immunologic evaluation. Am Rev Respir Dis 1985: 131: 662-665.
6. Yuen Yet al. Chronic lymphadenopathy caused by Penicillium marneffei: a condition mimicking tuberculous lymphadenopathy. Br J Surg 1986; 73: 1007-1008.
7. Jayanetra P, Nitiyanant P, Ajello L, Padhye AA, Lolekha S, Atichartakarn V, et al.

Volume 4, Issue 5; September-October 2021; Page No 1595-1597

Penicilliosis marneffei in Thailand: report of five human cases. Am J Trop Med Hyg. 1984;33:637–44.

8. Xi L, Lu C, Zhou X, Wang L, Xie S. Fifteen cases of penicilliosis in Guangdong, China. Mycopathologia. 2004;158:151–5.
9. Ustianowski AP, Sieu TPM, Day JN. Penicillium marneffei infection in HIV. Curr Opin Infect Dis. 2008;21:31–6.
10. Di-Qing Luo,Ming-Chun Chen,Jun-Hua Liu ,Zhi Li,Hui-Ting Li. Disseminated Penicillium Marneffei Infection in an SLE Patient: A Case Report and Literature Review. Mycopathologia (2011) 171:191–196

Volume 4, Issue 5; September-October 2021; Page No 1595-1597