



Extensive Chromoblastomycosis on the Face with Dissemination Caused by *Cladophialophora Carrionii*

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Abstract

Chromoblastomycosis is a subcutaneous fungal infection caused by dematiaceous fungi of various genera, commonly presents with asymptomatic verrucous plaques mostly on extremities after a history of injury.

Rarely it disseminates to other parts of the body and poses a difficulty in diagnosis and treatment. Here we report a case of extensive chromoblastomycosis on the face caused by *Cladophialophora Carrionii* with dissemination to extremities in an immunocompetent elderly woman.

Keywords: Chromoblastomycosis; Dissemination; *Cladophialophora Carrionii*

Introduction

Chromoblastomycosis is a member of the *Herpotrichiellaceae* family which is a dematiaceous / pigmented fungi causing cutaneous/subcutaneous fungal infection with rare lymphatic and hematogenous dissemination and cerebral involvement [1,2]. Various genera like *Cladophialophora*, *Exophiala*, *Fonsecaea*, and *Rhinocladiella* were implicated in pathogenesis [3]. In most instances, it presents as an asymptomatic slow-growing verrucous lesion mostly over extremities in rural/agricultural areas post-trauma [1].

A Review of the literature shows that roughly less than 200 cases have been reported in India to date [4]. Extra cutaneous spread is low in chromoblastomycosis [5]. Dissemination is most commonly seen with *Fonsecaea Pugnacius* because of

its neurotropic nature [6,7].

Case Report

A 65-year-old woman, an agricultural worker by occupation presented with multiple growths on her face for 2 asymptomatic years. Started as a single lesion on the left cheek and later developed into multiple similar lesions on the nose and ears within 6 months. She noticed similar lesions on her forearms and legs after 6 months. On local examination, multiple papules and verrucous plaques of different sizes from 1*1cm to 8*7cm. Some lesions showed central hemorrhagic crusts, umbilication, and lichenoid hue. Local cartilage and bone destruction were noted. Lymph nodes were normal (Figure 1-5).



Figure 1: Multiple verrucous plaques with crusting and lichenoid hue on face.



Figure 2: Right side of the face showing lesions with lichenoid hue and umbilication.



Figure 3: Left side of the face showing lesions on left ear helix.



Figure 4: Disseminated lesion on left forearm with central crusting.



Figure 5: Disseminated lesion on left leg.

On Dermoscopic examination, a reddish-pink background with multiple yellow-orange ovoid structures interspersed brown dots, crusts, and scales were observed. Potassium hydroxide mount (KOH) smear from the lesion showed sclerotic bodies (Figure 6).



Figure 6: Dermoscopy image from facial lesion.

The specimen was sent for fungal culture on Sabouraud's dextrose agar (SDA) media with antibiotics at 25-30 degrees Celsius. Culture showed olive green to black fungal colonies after 2-3 weeks (Figure 7).

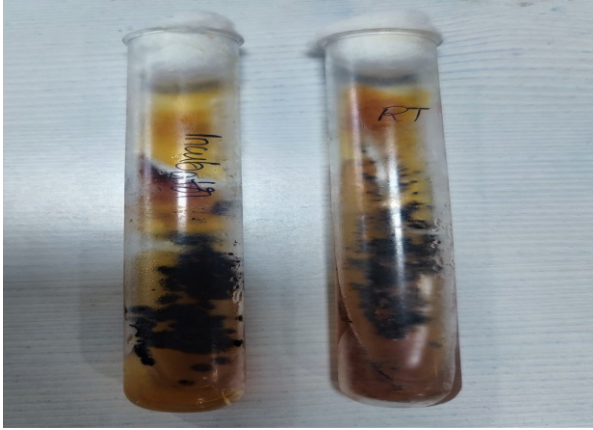


Figure 7: Colonies on Sabouraud's dextrose agar (SDA) medium.

Lactophenol cotton blue (LPCB) mount of colonies showed septate, compactly sympodial conidiophores with swollen tips and short chains suggestive of *Cladophialophora Carrionii* (Figure 8).

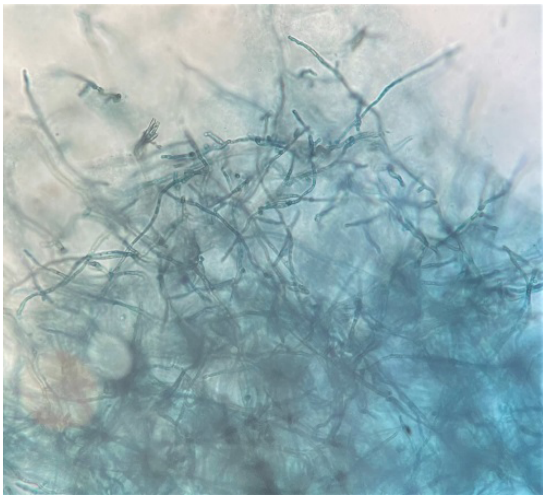


Figure 8: Lactophenol cotton blue (LPCB) mount from colonies.

Histopathological examination (HPE) from facial lesions showed thick-walled dark brown sclerotic cells/Medlar bodies/ copper penny bodies in a foreign body giant cell within granuloma in the dermis along with lympho-eosinophilic infiltrate (Figure 9).

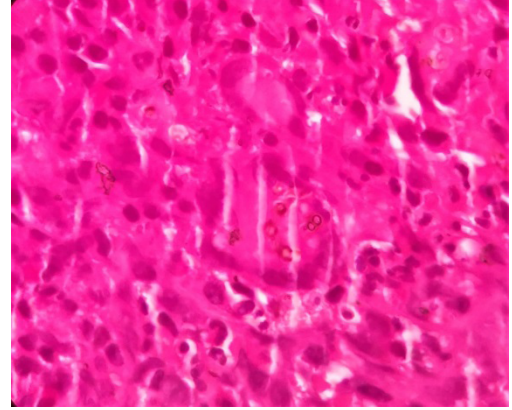


Figure 9: Image from Histopathological examination (HPE) slide - 40 X showing Medlar bodies within giant cell in a granuloma.

All other lab and radiological investigations were normal. Case diagnosed as Chromoblastomycosis with dissemination. The patient was treated with Capsule Itraconazole 200mg twice in a day and a Super Saturated solution of Potassium Iodide 25 drops thrice in day. The Patient showed dramatic improvement and near-complete resolution of lesions within 3 months without any iatrogenic side effects. Patient is continued on the above treatment and periodical follow-up waiting for complete resolution (Figure 10).



Figure 10: Dramatic response after treating with Super Saturated solution of Potassium Iodide (SSKI) 25 drops thrice in a day and Tab. Itraconazole 200 mg twice in a day.

Discussion

Chromoblastomycosis is a subcutaneous mycosis, most commonly caused by *Fonsecaea* species generally limited to the site of injury [8,9]. In this case, the causative agent was *Cladophialophora*. Very few case reports have reported facial chromoblastomycosis but without dissemination [10-13].

The risk of dissemination is very low with *Cladophialophora*, and it is through the lymphatic and hematogenous route [14]. There are other reported rare presentations of chromoblastomycosis like hypopigmentation [15,16], Disfiguring lesions [12], verrucous plaques with underlying osteolytic lesions [17], nodules [18], in skin graft recipient area [19], ulcerative lesions [20], sporotrichoid pattern [21,22]. Dissemination was not observed in any of the above-mentioned case reports [23-26].

Conclusion

We report a rare case of chromoblastomycosis which presented with large warty facial lesions without any disfigurement with distant hematogenous dissemination in an immunocompetent elderly female.

References

1. Elgart GW (1996) Chromoblastomycosis. *Dermatol Clin* 14(1): 77-83.
2. La Hoz RM, Baddley JW (2012) Subcutaneous fungal infections. *Current Infectious Disease Reports* 14(5): 530-539.
3. Queiroz-Telles F, de Hoog S, Santos DW, Salgado CG, Vicente VA, et al. (2017) Chromoblastomycosis. *Clin Microbiol Rev* 30(1): 233-276.
4. Agarwal R, Singh G, Ghosh A, Verma KK, Pandey M, et al. (2017) Chromoblastomycosis in India: Review of 169 cases. *PLoS Negl Trop Dis* 11(8): e0005534.
5. Shenoy MM, Girisha BS, Krishna S (2023) Chromoblastomycosis: A Case Series and Literature Review. *Indian Dermatol Online J* 14(5): 665-669.
6. Bombassaro A, Schneider GX, Costa FF, Leão ACR, Soley BS, et al. (2020) Genomics and Virulence of *Fonsecaea pugnacius*, Agent of Disseminated Chromoblastomycosis. *Front Genet* 11: 822.
7. de Azevedo CM, Gomes RR, Vicente VA, Santos DW, Marques SG, et al. (2015) *Fonsecaea pugnacius*, a Novel Agent of Disseminated Chromoblastomycosis. *Journal of Clinical Microbiology* 53(8): 2674-2685.
8. Tawade Y, Gaikwad A, Deodhar A, Bhide D, Romi E, et al. (2018) Uncommon presentation of chromoblastomycosis. *Cutis* 101(6): 442,447,448.
9. Pallivalappil N, Nair SP (2022) Unusual Presentation of Chromoblastomycosis with a Brief Review of its Atypical Cutaneous Presentations. *Indian Dermatol Online J* 13(1): 140-142.
10. Singh G, Shivaprakash MR, De D, Gupta P, Gupta S, et al. (2012) Chronic disfiguring facial lesions in an immunocompetent patient due to *Exophiala spinifera*: a case report and review of literature. *Mycopathologia* 174(4): 293-299.
11. Verma S, Verma GK, Singh G, Kanga A, Sharma V, et al. (2012) Facial chromoblastomycosis in sub-Himalayan region misdiagnosed as cutaneous leishmaniasis: brief report and review of Indian literature. *Dermatol Online J* 18(10): 3.
12. Panicker NK, Chandanwale SS, Sharma YK, Chaudhari US, Mehta GV (2013) Chromoblastomycosis: Report of two cases on face from urban industrial area. *Indian Dermatol Online J* 4(4): 371-373.
13. Mishra A, Tripathi K, Biswal P, Rath J (2011) Chromoblastomycosis of chin masquerading as facial wart. *Indian J Pathol Microbiol* 54(1): 221-222.
14. Thomas E, Bertolotti A, Barreau A, Klisnick J, Tournebize P, et al. (2018) From phaeoerythromycosis to disseminated chromoblastomycosis: A retrospective study of infections caused by dematiaceous fungi. *Med Mal Infect* 48(4): 278-285.
15. Khan K, Mondal K, Dutta R, Mandal PK, Mandal R, et al. (2017) Unusual Presentation of Cutaneous Chromoblastomycosis. *Am J Dermatopathol* 39(2): 159-161.
16. Verma GK, Verma S, Singh G, Shanker V, Tegta GR, et al. (2014) A case of extensive chromoblastomycosis from North India. *Braz J Microbiol* 45(1): 275-277.
17. Sharma NL, Sharma VC, Mahajan V, Shanker V, Sarin S (2007) Chromoblastomycosis with underlying osteolytic lesion. *Mycoses* 50(6): 517-519.
18. Qiu Y, Zhang J, Tang Y, Zhong X, Deng J (2019) Case report: Fever- pneumonia- lymphadenectasis- osteolytic- subcutaneous nodule: Disseminated chromoblastomycosis caused by phialophora. *J Infect Chemother* 25(12): 1031-1036.
19. Roy P, Prasanna S, Laxmikant DV, Chaudhari CN (2016) Chromoblastomycosis caused by *Cladophialophora carrionii* in a skin graft recipient. *Medical Journal Armed Forces India* 72(4): 389-392.
20. Dhar S, Gupta D, Malakar R, Dhar S (2022) A Rare Case of Chromoblastomycosis Presenting as a Primary Ulcer. *Indian Journal of Dermatology* 67(5): 560-562.
21. Muhammed K, Nandakumar G, Asokan KK, Vimi P (2006) Lymphangitic chromoblastomycosis. *Indian J Dermatol*

- Venereol Leprol 72(6): 443-445.
22. Rao AG, Marepally N, Sindhu V, Vangala S, Bujagouni S, et al. (2023) Chromoblastomycosis Presenting with Sporotrichoid Distribution and Bony Destruction: A Rare Presentation. *Indian J Dermatol* 68(4): 450-454.
 23. Shresta D, Kumar R, Durgapal P, Singh CA (2014) Isolated nasal chromoblastomycosis. *Indian J Pathol Microbiol* 57(3): 519-521.
 24. Jayasree P, Malakar S, Raja H, Nair NG (2019) Dermoscopic features in nodular chromoblastomycosis. *Int J Dermatol* 58(5): e107-e109.
 25. Anjaneyan G, Jagadeesan S, Thomas J (2016) Cytodiagnostic copper pennies in chromoblastomycosis. *Indian Dermatol Online J* 7(2): 145-146.
 26. Mittal A, Agarwal N, Gupta LK, Khare AK (2014) Chromoblastomycosis from a Non-endemic Area and Response to Itraconazole. *Indian Journal of Dermatology* 59(6): 606-608.