

Dermoscopy of chromoblastomycosis

Sweta Subhadarshani¹, Deepika Yadav¹

¹ Department of Dermatology and Venereology All India Institute of Medical Sciences, New Delhi, India

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Corresponding author: Sweta Subhadarshani, MD, Department of Dermatology and Venereology, All India Institute of Medical Sciences, Ansari Nagar, New Delhi: 110049, India. Tel. 919868386876. Email: Shweta.aiims07@gmail.com

ABSTRACT Chromoblastomycosis is a chronic cutaneous fungal infection commonly caused by *Fonsecaea* and *Cladophialophora* spp. Dermoscopy is a non-invasive, real-time diagnostic tool for rapid bedside diagnosis of various inflammatory and non-inflammatory disorders and can be an excellent modality for evaluation of cutaneous mycosis, for which it shows characteristic brown dots, crust, scales and yellow orange structures.

Case Presentation

A 58-year-old female presented to us with a gradually progressive erythematous scaly plaque over dorsum of right hand for eight months. There was a single round, tender 2 x 2 cm well defined plaque, with multiple black dots, scaling and crust (Figure 1). Potassium hydroxide mount from the black dots showed multiple refractile, round, grouped coppery structures (Medlar bodies). Dermoscopy showed a reddish pink background with multiple yellow-orange ovoid structures, along with interspersed brown dots, crusts and scales. Skin biopsy from the plaque showed acanthotic epidermis with mixed cell infiltrate and microabscess with pigmented spherical spores. Mycological culture from the tissue showed growth of *Fonsecaea pedrosoi*. Based on clinical, dermoscopic and histopathological features, a diagnosis of chromoblastomycosis was made. Oral itraconazole 200 mg twice daily was started.

Conclusion

Chromoblastomycosis is a chronic fungal infection involving skin and subcutaneous tissue of the extremities. It is mostly caused by trauma [1]. Commonly isolated fungal species are *Fonsecaea*, *Phialophora* and *Cladophialophora*.

Clinically it presents as an erythematous papule and nodule progressing to form a verrucous plaque with central clearing. Other common presentations include tumoral, cicatricial and sporotrichoid forms. Direct microscopy shows presence of 5-12 µm sized, thick-walled, dark-colored structures called Medlar bodies. Histopathology shows pseudoepitheliomatous hyperplasia with intraepidermal abscess and Medlar bodies [2]. Isolation of the fungus on culture confirms the diagnosis of chromoblastomycosis. Treatment includes either oral itraconazole (400 mg/day) or terbinafine (500 mg/day) with or without physical modalities such as thermotherapy.

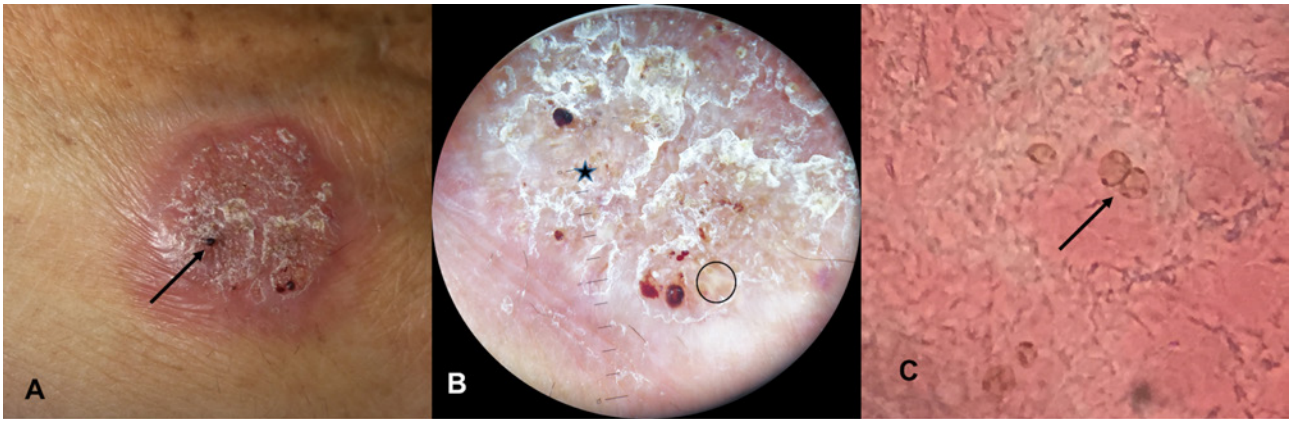


Figure 1. (A) Well-defined, erythematous, scaly, crusted plaque studded with black dots (arrow) over the dorsum of the hand. (B) Dermoscopy (polarized, 16X; Heine Delta 20T, Heine Optotechnik, Herrsching, Germany) shows pink and white background with yellowish orange ovoid structures (circle), brown dots (asterisk), scale and crust. (C) Potassium hydroxide mount (400X) shows medlar bodies (arrow). [Copy-right: ©2017 Subhadarshani et al.]

Dermoscopy of chromoblastomycosis shows irregular blackish red dots and white and pink areas along with scaling, crusting [3]. The blackish red dots correspond to the black dots observed clinically. These represent transepithelial elimination of the inflammatory cells and fungal elements along with hemorrhage [4]. This transepithelial elimination is thought to be an important defense mechanism in restricting the fungal infection. White and pink areas correspond to uneven areas [5]. Yellow, ovoid structures on dermoscopy represent granulomas. These can be seen in any granulomatous pathology either infective or non-infective. Out of the above-mentioned dermoscopic features, the presence of irregular blackish red dots is the most useful sign in making a diagnosis of chromoblastomycosis. In fact, resolution of blackish red dots has been noted with the clinical and pathological clearance of the lesion [5].

Dermoscopy is an excellent bedside real-time tool for the diagnosis of chromoblastomycosis.

References

1. Torres-Guerrero E, Isa-Isa R, Isa M, Arenas R. Chromoblastomycosis. *Clin Dermatol.* 2012;30:403-408.
2. Uribe F, Zuluaga AI, Leon W, Restrepo A. Histopathology of chromoblastomycosis. *Mycopathologia.* 2013;175:477-488.
3. Arguello-Guerra L, Gatica-Torres M, Dominguez-Cherit J. Chromomycosis. *BMJ Case Rep.* 2016 May 20;2016.
4. Zaias N, Rebell G. A simple and accurate diagnostic method in chromoblastomycosis. *Arch Dermatol.* 1973;108:545-546.
5. Tang J, Zhuang K, Ran X, Dai Y, Ran Y. Chromoblastomycosis caused by *Cladophialophora carrionii*. *Indian J Dermatol Venereol Leprol.* 2017;83:482-485.