A Case of Fonsecaea monophora Infection

Weon Ju Lee¹†, Dong Hyuk Eun¹, Jun Hong Park¹, Yong Hyun Jang¹, Seok-Jong Lee¹, Do Won Kim¹, Yong Jun Bang² and Jae Bok Jun²

Department of Dermatology, Kyungpook National University School of Medicine, Daegu, Korea¹
Institute of Medical Mycology, Catholic Skin Clinic, Daegu, Korea²

A 65-year-old male patient presented with a walnut-sized, scaly erythematous plaque on the left forearm for 1 year (Fig. 1A). He had been taking antihypertensive agents. He was diagnosed with chromoblastomycosis caused by Fonsecaea monophora by using biopsy, KOH preparation, fungal culture, lactophenol cotton blue staining, and DNA gene sequencing. Histopathology showed brownish sclerotic bodies and a mixed inflammatory and granulomatous infiltrate in the dermis (Fig. 1B). KOH preparation showed brown sclerotic bodies (Fig. 2A). Fungal culture showed dark black, velvety colonies (Fig. 2B). Long, septate hyphae with numerous conidia were observed on lactophenol cotton blue staining. Sequencing analysis of the internal transcribed spacer (ITS) region of ribosomal DNA (rDNA) using Gapped Basic Local Alignment Search Tool (BLAST) and Position-Specific Iterated (PSI)-BLAST in GenBank identified Fonsecaea monophora. Gene sequencing revealed 100% homology with accession number AB091204. The chromoblastomycosis was controlled by taking oral antifungal medication (itraconazole 100 mg twice a day for 2 months).

Deep mycosis caused by dematiaceous fungi is roughly subdivided into three types: chromoblastomycosis, black-grain mycetoma, and phaeohyphomycosis. Fonsecaea pedrosoi, which is a major dematiaceous fungus, accounts for 90% of chromoblastomycosis. Fonsecaea has been reclassified using rDNA ITS sequence analysis: Fonsecaea pedrosoi, Fonsecaea monophora, and others.¹ Our case had chromomycosis caused by Fonsecaea monophora that had developed on the left forearm. Fonsecaea monophora could not be identified through morphological examination, but was confirmed using rDNA ITS sequence analysis. Occasionally, sclerotic cells on KOH preparation and histopathological examination can be helpful in making a diagnosis of chromoblastomycosis caused by Fonsecaea monophora.² Chromoblastomycosis can be successfully treated with physical modalities, chemotherapy, and/or combination therapy.³ In Korea, 4 cases of Fonsecaea monophora chromoblastomycosis have been reported. Kim et al.⁴ reported a case in 2014, and the others were reclassified phylogenetically as Fonsecaea monophora by Lim et al.⁵ in 2010. Nevertheless, chromoblasto-
mycosis caused by *F. monophora* is very rare in Korea. We describe a case of *F. monophora* chromoblastomycosis identified with gene sequencing analysis.

**Key Words:** Chromoblastomycosis, Dermatophyte, Dermatophytosis, *Fonsecaea, Fonsecaea monophora*

**Conflict of interest**

In relation to this article, I declare that there is no conflict of interest.

**REFERENCES**


