

## Brief summary

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# Subcutaneous mycoses: common but neglected among the Neglected Tropical Diseases in Ethiopia<sup>1</sup>

Enbiale W, Bekele A, Manaye N, Seife F, Kebede Z, Gebremeskel F, et al. (2023)  
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### Key Messages

- Subcutaneous mycoses (Deep fungal infection of the skin) are a chronic infectious disease of the skin and underlying structures endemic in developing countries.
- Early detection and treatment of subcutaneous mycoses (Deep fungal infections of the skin and structure beneath it) are important to reduce morbidity and improve treatment outcomes.
- Currently, accurate data on its incidence and prevalence in Ethiopia are not available
- We found that mycetoma and other subcutaneous mycoses are common in Ethiopia, with over two third of cases were from the northern part of the country (Tigray and Amhara regions).
- WHO need to include Ethiopia among the countries where mycetoma is reported
- The Disease Prevention and Control Directorate, Ministry of Health-Ethiopia, should include mycetoma into the country Neglected Tropical Diseases (NTDs) list and to have an indicator for it.
- Community-based surveillance is needed to establish the prevalence in the districts of regions where a high number of cases were reported (Tigray and Amhara regions)

### What is the problem and why is it important?

- Subcutaneous mycoses are long-lasting fungal infections that affect the skin and tissues underneath it. Mycetoma, chromoblastomycosis and sporotrichosis are the most common subcutaneous mycoses.
- These diseases are associated with increased healthcare costs, decreased economic productivity, and reduced quality of life due to stigma and physical disability.
- The inclusion of mycetoma and other subcutaneous mycoses in the World Health Organization's list of NTDs highlights the need for understanding their impact and implementing control programs.
- The 3rd National NTDs Strategic Plan of Ethiopia (2021-2025) emphasizes the importance of identifying the geographical distribution of these diseases. However, there is no systematically collected data on these diseases
- To address this evidence gap, we conducted a rapid nationwide study to assess the disease burden and geographic distribution.

## How did we measure it?

- We conducted a rapid retrospective assessment of outpatient department logbooks in 13 hospitals in Ethiopia from 2015 to 2022
- We reviewed all the cases and extracted data on sociodemographic information, lesion duration and body location, history of injury, clinical diagnoses, laboratory and imaging information about subcutaneous mycoses.
- Data were collected on paper and then entered into an Excel database for descriptive analysis.

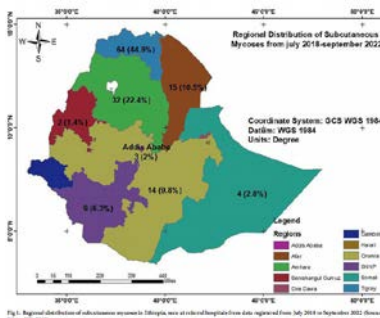


Figura 1: Regional distribution of subcutaneous mycoses in Ethiopia, seen at referral hospitals from data registered from July 2018 to September 2022 (Source Ethio\_GIS, 2019)

## What did we find?

- From 13 hospitals we extracted 143 cases of subcutaneous mycoses
- 67% of cases were from the Tigray and Amhara regional states (Fig. 1)
- Two-thirds of cases were diagnosed clinically without laboratory investigation.
- Of this the largest proportion was diagnosed with mycetoma (Fig. 2)
- The majority of the cases occurred in individuals between 18 and 60 years old, and who were male and farmers.

## Implications

- The study Highlights the need for comprehensive measures to prevent, diagnose, and treat deep fungal infections nationwide, with special emphasis on the northern region (Tigray and Amhara regions).
- The assessment also highlights a need to improve access to laboratory facilities and diagnostic tools
- The Disease Prevention and Control Directorate, Ministry of Health-Ethiopia, should include mycetoma and subcutaneous mycoses in the NTDs list of Ethiopia and develop an Indicator for DHIS2.
- Public Health Awareness about the diseases and equipping the Healthcare facilities with the necessary resources and expertise to diagnose and manage subcutaneous mycoses is needed
- Community-based surveillance is needed to establish the prevalence in the districts of regions where a high number of cases were reported (Tigray and Amhara regions)
- WHO need to include Ethiopia among the countries where mycetoma is reported

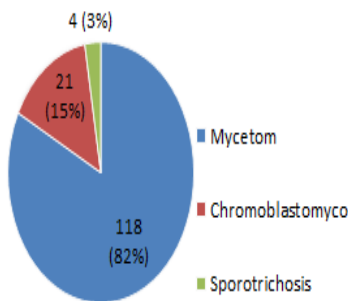


Fig 2: Types of Subcutaneous Mycoses Observed in Ethiopian Hospitals (2015-2022)