



FACTS



Only

35%

estimated cure rate for
fungal mycetoma with
current treatments



Occurs most often
in the so-called

'mycetoma belt'

between latitudes 15°S
and 30°N



Unknown
global burden

MYCETOMA

Conducting the world's first clinical trial

One of the world's most neglected diseases, mycetoma is a devastating, slow-growing infection most likely transmitted by a thorn prick. Occurring across the so-called 'mycetoma belt', which stretches from Central and South America to the Sahel, the Middle East, and South Asia, the fungal version of mycetoma leads to horrible deformities and disability. Currently, people living with mycetoma are confronted with ineffective, toxic, and overpriced drugs. For many, the only option is amputation.

The push for progress

DNDi is running the world's first and only randomized comparative clinical trial for mycetoma, working with partners to identify a safe, effective, and affordable treatment. Following advocacy from DNDi and our partners, WHO added mycetoma to its list of NTDs in 2016 – an important step in raising awareness of the disease and encouraging investment in research for diagnostics and treatments that can be easily used in rural areas.

Our goal is now to develop a new treatment for mycetoma that can prevent devastating amputation and disability – and to ensure access for all people in need.

Fosravuconazole

The Mycetoma Research Centre (MRC), a WHO Collaborating Centre in Khartoum, Sudan, began enrolling patients in the first-ever double-blind, randomized clinical trial for fungal mycetoma treatment in 2017. Conducted in partnership with the MRC, DNDi, and Eisai Co., Ltd., the trial is studying the efficacy of treating moderate-sized lesions with a weekly dose of fosravuconazole over a period of 12 months, compared to daily treatment with itraconazole, the current standard of care. Follow-up for all trial participants continued in 2021, with completion of all trial visits late in the year. Final results are expected in 2022. Depending on these results – and considering



Photo credit: La'neek Ododo-DNDi

Amna Yousif is a 45-year-old farmer from the state of Gezira, Sudan, where mycetoma is highly prevalent. Three years ago, she noticed swelling on her foot that started to expand and went to Al Managil Hospital for surgery to remove the mycetoma-affected tissue. The swelling recurred one year later, and Amna experienced excruciating pain because the infection had spread to her bones. When she visited the Mycetoma Research Centre in Khartoum, she learned that the infection was so advanced that she would have to undergo amputation. Amna has not been able to go back to farming since losing her leg. She depends entirely on her husband and children and faces stigma and isolation because of her disability.

“ I was in so much pain and my foot was very deformed. When the doctor proposed an amputation, I agreed even though I knew that life would not be the same afterwards. I continue to hope for a better treatment that will assure that I can be fully cured.

the practical advantages of fosravuconazole over the current standard of care (weekly administration and lower cost of treatment) – DNDi and partners will evaluate the potential of registering fosravuconazole in Sudan as an interim step toward improving treatment.

Identifying new drug candidates: MycetOS

The Mycetoma Open Source project (MycetOS) uses an ‘open-source pharma’ approach to discover new treatments targeting *Madurella mycetomatis*, the most common cause of fungal mycetoma. Participating researchers engage through community-driven, in-kind scientific contributions, with all ideas and results published immediately in real time to an open-access database, free of intellectual property constraints. MycetOS platform collaboration continued in 2021, with a second manuscript on MycetOS accepted for publication and new starting points for mycetoma drug discovery identified via screening of the Pandemic Response Box, a joint project of MMV and DNDi. Optimization of lead compounds continued throughout the year.