MYCETOMA

THE WORLD'S FIRST CLINICAL TRIAL FOR A DEVASTATING DISEASE

Mycetoma is truly one of the most neglected diseases in the world. It is not well understood or widely studied. The chronic and slow-growing infection begins most often in the foot, likely after a cut allows the bacteria or fungi that cause the disease to enter, and sometimes spreads to other parts of the body. People are often infected when they step on the thorn of an acacia tree without footwear. Mycetoma causes severe disability, and amputation is often the only option people have.

MYCETOMA STATISTICS

ONLY **35%**
cure rate for fungal mycetoma with current treatments

Unknown
global burden

Belt
occurs most often in the so-called '**mycetoma belt**' between latitudes 15° S and 30° N

TREATMENT CHALLENGE

Mycetoma comes in either a bacterial or fungal form. For the fungal type of mycetoma (eumycetoma), available treatments are frustratingly ineffective – even after 12 long months of treatment cure rates are only around 35%. The medicines are also unaffordable for most of the people affected by the disease and cause considerable side effects. A combination of antifungal drugs and surgery is often used, and amputation is common.

There is currently no effective cure for fungal mycetoma. **DND*i* aims to develop an effective, safe, affordable, and simpler curative treatment.**

> **“I got mycetoma 19 years ago after I was pricked by a thorn. Even after numerous treatments, eight surgeries, and finally an amputation of my leg, I don’t think I am healed. ”**

Alsadik Mohammed Musa Omer
received treatment at the Mycetoma Research Centre in Khartoum, Sudan, one of the world’s leading centres on research and management of the disease.

In 2017, together with the Mycetoma Research Centre in Sudan and the Japanese pharmaceutical company Eisai, DND*i* launched a clinical trial for a promising new antifungal treatment, fosravuconazole, in the first-ever double-blind randomized clinical study for mycetoma. This study assesses the efficacy of weekly treatment with fosravuconazole, compared with the standard of care. By January 2020, 101 patients had been enrolled in the study.

To offer additional future options for mycetoma patients, the University of Sydney, Erasmus MC (Erasmus University Medical Center, Rotterdam, the Netherlands), and DND*i* launched the Mycetoma Open Source project (MycetOS) to discover new drug candidates for fungal mycetoma. A list of drug targets has been compiled and participating partners of the Open Synthesis Network have received data from MycetOS to begin identifying new compounds for mycetoma.

Under WHO’s leadership, a Global Call for Action was launched in 2019 urging the global community to work together with multilateral agencies, partners, research institutions, and pharmaceutical companies to address the devastating consequences of this disease.

> ***“The Mycetoma Research Centre is the only specialized facility for mycetoma in the world. Our patients are the poorest of the poor, and often travel for days from extremely rural areas to get treatment. These people need more global attention; more research is needed because they have been neglected for too long. ”***

Dr Ahmed Fahal
Professor of Surgery, University of Khartoum and Director of the Mycetoma Research Centre, Sudan

> ***“We are excited fosravuconazole has shown strong anti-fungal activity against mycetoma in the laboratory and has the potential to be an affordable, oral drug. ”***

Dr Katsura Hata
Senior Director, Global Health Research Section, hhc Data Creation Center, Eisai Co., Ltd.