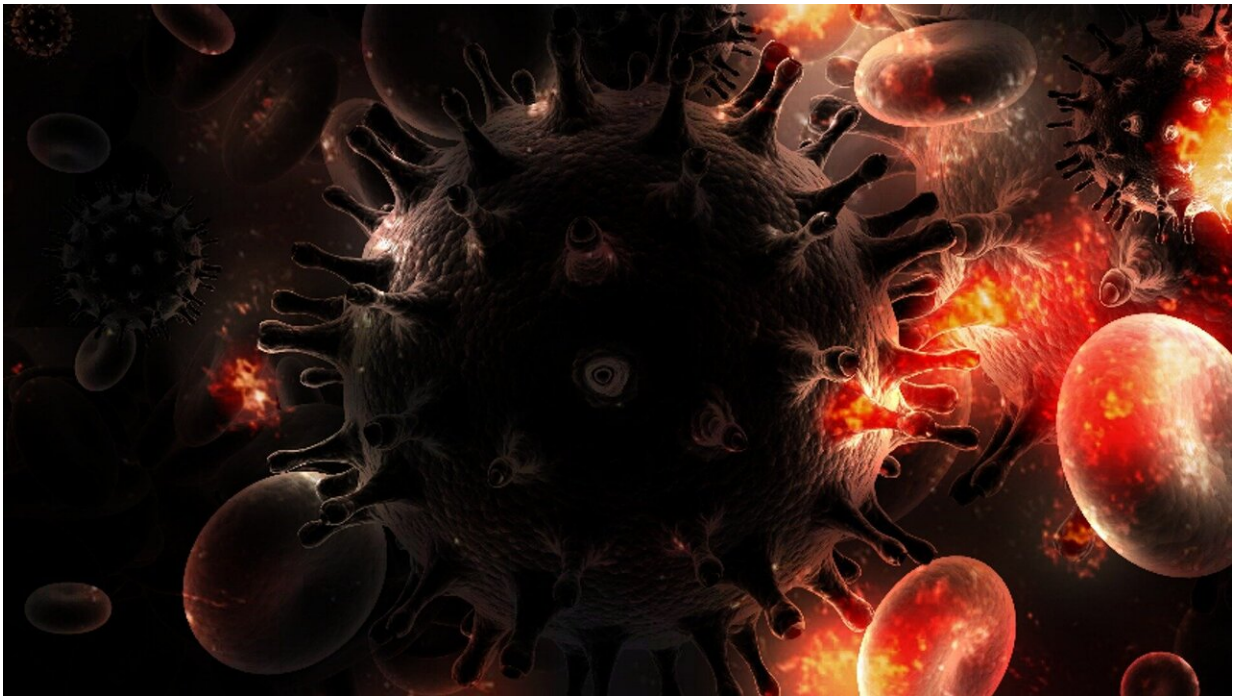


A fungus is major cause of death among people with HIV in the Brazilian Amazon

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A series of autopsies performed in an infectious disease hospital in the Brazilian Amazon reveals that infections by the *Histoplasma* fungus are a major cause of death in people with HIV. The study, led by Barcelona Institute for Global Health (ISGlobal), an institution supported by 'la Caixa' Foundation, in collaboration with a team in Manaus, highlights the need of implementing sensitive methods to detect these infections in

Histoplasma-endemic regions.

Histoplasmosis is a [lung infection](#) caused by inhalation of spores from a fungus (Histoplasma), and is frequent in some areas of the US, Africa, and Latin America.

In the majority of individuals with a functional immune system, the [infection](#) causes mild symptoms. However, in people who are immunocompromised, such as people with HIV, the infection can disseminate to other parts of the body and, if not treated, lead to death.

"The problem is that the precise burden of the disease in endemic regions is not known, since its symptoms are frequently mistaken for tuberculosis," says Miguel Martinez, ISGlobal researcher and study coordinator. In the framework of the CaDMIA project—which developed and validated a minimally invasive autopsy method—the ISGlobal team, in collaboration with Brazilian researchers, performed a series of complete autopsies in 61 patients who died in a Manaus hospital specialized in tropical diseases.

Using microscopic and molecular techniques, the research team found evidence of Histoplasma infection in one out of three deceased individuals. In a high percentage of cases, all of which were HIV-positive, the infection was disseminated and had severely damaged other organs. In addition, genomic sequencing of the isolates suggests a high diversity of Histoplasma strains circulating in the area.

"Despite the high mortality due to histoplasmosis, 75% of the cases were not clinically suspected," says Natalia Rakislova, first author of the study.

Given the high incidence of histoplasmosis, the low rate of clinical suspicion, and the severity of disseminated [disease](#), the authors

recommend a preventive antifungal treatment in seriously immunocompromised patients with HIV living in regions where *Histoplasma* is endemic. The study results also highlight the need to actively implement sensitive routine tests to detect this pathogen.

More information: Natalia Rakislova et al, High prevalence and mortality due to *Histoplasma capsulatum* in the Brazilian Amazon: An autopsy study, *PLOS Neglected Tropical Diseases* (2021). [DOI: 10.1371/journal.pntd.0009286](https://doi.org/10.1371/journal.pntd.0009286)

Provided by Barcelona Institute for Global Health

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