

PROJECT BRIEF

Various studies on the fungus *Blastomyces dermatitidis*

Background

Blastomycosis is a potentially fatal fungal infection in humans, dogs, cats, and other animals. *Blastomyces dermatitidis*, exists as a mold in nature and is generally acquired through the inhalation of spores that transform to the yeast forms in the lungs. The ecology of this fungus is incompletely defined due to lack of reliable skin testing, infrequent environmental isolations, significant rates of asymptomatic disease, and uncertain incubation periods of the disease. Thus, case clusters provide valuable opportunities to further understand the environmental niche of *B. dermatitidis*.

Objectives

- Add to existing knowledge of the ecology and epidemiology of *B. dermatitidis*.
- Raise awareness of this disease in urban and other “non-classic” settings and to identify environmental risk factors.

Design

Designs including retrospective/prospective chart reviews, telephone interviews, geocoding, case studies, fieldwork and basic research.

Findings

- There is evidence to support the possibility that humans and animals may acquire *B. dermatitidis* in or very near one’s home regardless of one’s population density.
- There is a lack of geographic epidemiologic and basic ecological data regarding *B. dermatitidis*. This data is essential to describe the risk factors for this environmentally acquired disease.

Implications

Clinicians must take care to include *B. dermatitidis* in the diagnosis of any humans or animal with suggestive symptoms that have a history of travel to an endemic area, even if that individual is primarily homebound or in an urban area.

Investigators and Staff

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Selected Publications

1. Baumgardner DJ, Steber D, Glazier R, et al. Geographic information system analysis of blastomycosis in northern Wisconsin, USA: waterways and soil. *Med. Mycol.* 2005; 43: 117-125.
2. Blondin N, Baumgardner DJ, Moore GE, Glickman LT. Blastomycosis in indoor cats: suburban Chicago, Illinois, USA. *Mycopathologia* 2007; 163: 59-66.
3. Baumgardner DJ, Knavel EM, Steber D, Swain GR. Geographic distribution of human blastomycosis cases in Milwaukee, Wisconsin, USA: association with urban watersheds. *Mycopathologia* 2006; 161: 275-282.

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