

BLASTOMYCOSIS IN A MALE DOG

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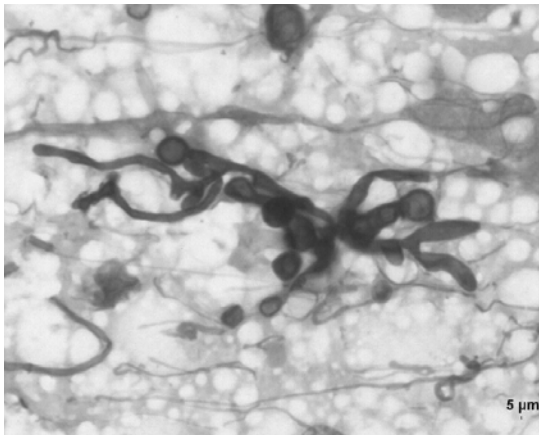
(Received 18/05/2011, Accepted 29/05/2012)

Blastomyces dermatitidis, a thermal dimorphic fungus is the etiologic agent of blastomycosis in dogs and cats. It exists as a mould in the soil, and as a broad-based, budding yeast form in tissues or when cultured at body temperature (Bateman, 2002). The present case report puts on the record the occurrence of blastomycosis in a non-descript dog.

CASE HISTORY AND CLINICAL OBSERVATIONS

A four years old male non-descript dog was brought to the Madras Veterinary College Teaching Hospital with the history of chronic ulcerated skin lesion and lymphadenopathy. Fine Needle Aspiration Biopsy was collected from the lymph node for cytological examination. Cytological smear was stained with Leishman and Giemsa stain.

Cytological examination revealed the presence of round yeasts of various sizes ranging from approximately 5 to 20 μm in diameter. The organism had a thick cell wall with broad based buddings; based on morphology it was confirmed as *B dermatitidis* infection, which is in agreement with earlier report of Mordecai et al. (2003).



**Photograph : Non-descript dog-
Blastomyces dermatitidis- Round yeast
with thick cell wall and broad based
buddings Scale Bar H&E 20 m**

The mold, which is the infectious form, is generally restricted to moist, acidic soil habitats that are rich in decaying vegetation (Bateman, 2002). Dogs are probably infected with *B. dermatitidis* by inhalation of windborne or soilborne spores resulting in a primary focus of infection within the lung (Legendre, 1990; Wolf and Troy, 1995). In the alveoli, the spores were transformed into the yeast form and multiply within macrophages. The present case was recorded in the lymph node which could be a generalized or disseminated form of blastomycosis and might occur when the organism spread via the blood or lymphatic system, causing pyogranulomatous inflammation in the eyes, brain, bone, lymph nodes, urogenital system and skin, subcutaneous tissues, or both (Wolf and Troy, 1995).

Direct inoculation into the subcutaneous tissue via puncture wounds has also been reported in dogs and humans, causing local cutaneous infection. There is increased risk for 2- to 4-year-old, sexually intact, male dogs of sporting and hound breeds, which may be housed outside, and which are likely to be working in areas suitable for the growth of *B. dermatitidis* (Ruddmann et al., 1992; Arceneaux et al., 1998). Proximity to a body of water is also a significant risk factor (Arceneaux et al., 1998). The present case was recorded in a four years old male non-descript dog which could be due to animal might be housed outside and the areas are suitable for the growth of *B. dermatitidis* infection (Ruddmann et al., 1992; Arceneaux et al., 1998). After identification of the organisms, antifungal agent has been recommended for the treatment.

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