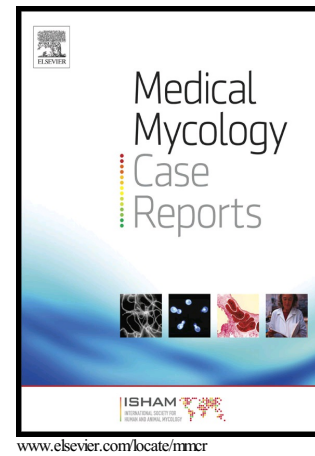


Cutaneous Pythiosis in calves: an epidemiologic, pathologic, serologic and molecular characterization

Guilherme Konrad, Daniele Mariath Bassuino, Matheus Viezzer Bianchi, Lismara Castro, Rafaela Albuquerque Caprioli, Saulo Petinatti Pavarini, Janio M. Santurio, Maria Isabel Azevedo, Francielli P. Jesus, David Driemeier



PII: S2211-7539(16)30049-5
DOI: <http://dx.doi.org/10.1016/j.mmcr.2016.11.004>
Reference: MMCR204

To appear in: *Medical Mycology Case Reports*

Received date: 22 November 2016
Revised date: 23 November 2016
Accepted date: 24 November 2016

Cite this article as: Guilherme Konrad, Daniele Mariath Bassuino, Matheus Viezzer Bianchi, Lismara Castro, Rafaela Albuquerque Caprioli, Saulo Petinatti Pavarini, Janio M. Santurio, Maria Isabel Azevedo, Francielli P. Jesus and David Driemeier, Cutaneous Pythiosis in calves: an epidemiologic, pathologic serologic and molecular characterization, *Medical Mycology Case Reports* <http://dx.doi.org/10.1016/j.mmcr.2016.11.004>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Cutaneous Pythiosis in calves: an epidemiologic, pathologic, serologic and molecular characterization

Guilherme Konrad^a, Daniele Mariath Bassuino^a, Matheus Viezzer Bianchi^a, Lismara Castro^a, Rafaela Albuquerque Caprioli^a, Saulo Petinatti Pavarini^a, Janio M. Santurio^b, Maria Isabel Azevedo^b, Francielli P. Jesus^b and David Driemeier^{a*}.

^aSetor de Patologia Veterinária, Departamento de Patologia Clínica Veterinária, Faculdade de Veterinária, Universidade Federal do Rio Grande do Sul (UFRGS), Av. Bento Gonçalves 9090, Porto Alegre, RS 91540-000, Brasil.

^bLaboratório de Pesquisas Micológicas (LAPEMI) – Dept. Microbiologia, Universidade Federal de Santa Maria, Santa Maria, RS, Brazil.

*Corresponding author. E-mail address: davetpat@ufrgs.br (D.Driemeier)

ABSTRACT

This study reports the epidemiological, pathological and mycological findings of cutaneous pythiosis in cattle in southern Brazil. 23 calves, that were kept next to a river with extensive marshy regions, presented ulcerated cutaneous lesions in thoracic and pelvic limbs, sometimes extending to the ventral thoracic region. Histopathological examination revealed multifocal pyogranulomas in the superficial and deep dermis. The Grocott-Methenamine silver, immunohistochemistry anti-*Pythium insidiosum*, ELISA serology and molecular characterization demonstrated the agent *P. insidiosum* in these cases.

Keywords:

Cattle, Diagnostic methods, Marshy regions, Pyogranulomatous lesions, *Pythium insidiosum*

1. Introduction

Pythiosis is a chronic granulomatous disease caused by the oomycete *Pythium insidiosum* belonging to the Kingdom *Stramenopila* [11]. These opportunistic pathogens live in warm stagnant water and are most often reported in regions with tropical and subtropical environments [10]. In Brazil, the disease occurs predominantly in horses, however, outbreaks have been reported in sheep and cattle [16,17].

Pythiosis has three distinct forms of clinical presentation in domestic animals: cutaneous [5,6,10], gastrointestinal [15] and rhinofacial [17]. In cattle, the cutaneous form of the disease is sporadic and widely described [16] and usually occurs during the rainy season in subtropical areas [5].

The clinical diagnosis is based on epidemiological characteristics and pathological lesions [3]. However, for definitive diagnosis, cultivation and identification of the agent are crucial [10]. Techniques of immunohistochemistry, serological testing by ELISA and polymerase chain

Download English Version:

<https://daneshyari.com/en/article/8484909>

Download Persian Version:

<https://daneshyari.com/article/8484909>

[Daneshyari.com](https://daneshyari.com)