



Malasseziose em Cães

Prof. Dr. Rafael Rodrigues Ferreira

Malasseziose em cães

01

Etiologia

02

Patogenia

03

Sinais Clínicos

04

Diagnóstico

05

Tratamento

Etiologia

Gênero *Malassezia*

Levedura

Unicelular

Lipofílico

Ovóide



The Role of Fungi in Atopic Dermatitis



Martin Glatz, MD^{a,b,*}, Philipp Bosshard, PhD^c, Peter Schmid-Grendelmeier, MD^{a,b}

Immunol Allergy Clin N Am 37 (2017) 63–74

<http://dx.doi.org/10.1016/j.iac.2016.08.012>

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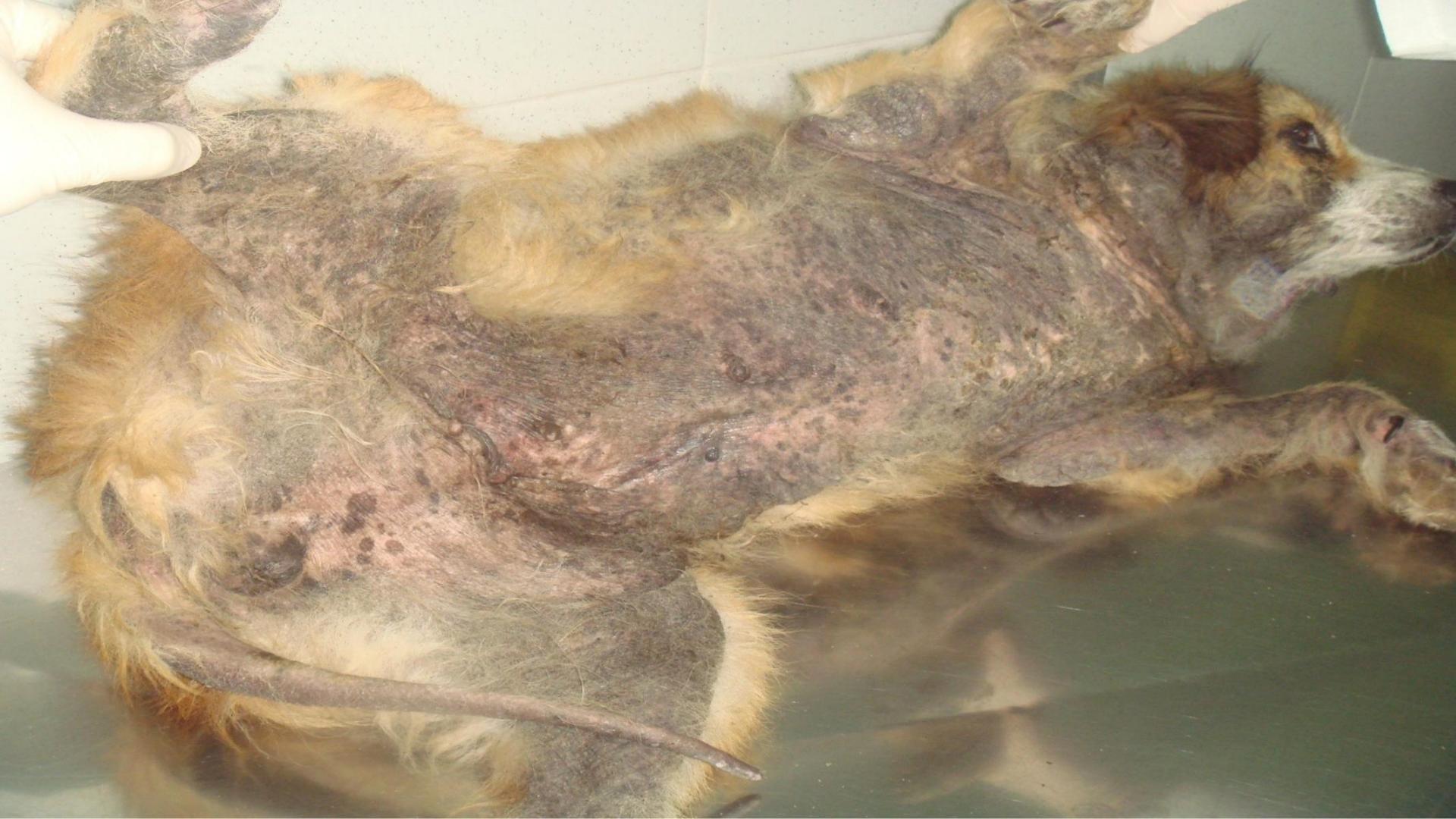
Table 1
Currently identified *Malassezia* species

<i>Malassezia</i> Species	Isolated from Human Skin	Isolated from Animal Skin	Description as Species (Year)
<i>M caprae</i>	—	X	2007
<i>M cuniculi</i>	—	X	2011
<i>M dermatitis</i>	X	—	2002
<i>M equina</i>	—	X	2007
<i>M furfur</i>	X	X	1889
<i>M globosa</i>	X	X	1996
<i>M japonica</i>	X	—	2003
<i>M nana</i>	—	X	2004
<i>M obtusa</i>	X	—	1996
<i>M pachydermatis</i>	—	X	1925
<i>M restricta</i>	X	—	1996
<i>M slooffiae</i>	X	X	1996
<i>M sympodialis</i>	X	X	1990
<i>M yamatoensis</i>	X	—	2004

Dufait, 1983 - caninos
Não lipídeo dependente

**Faz parte da
microbiota
normal dos cães**





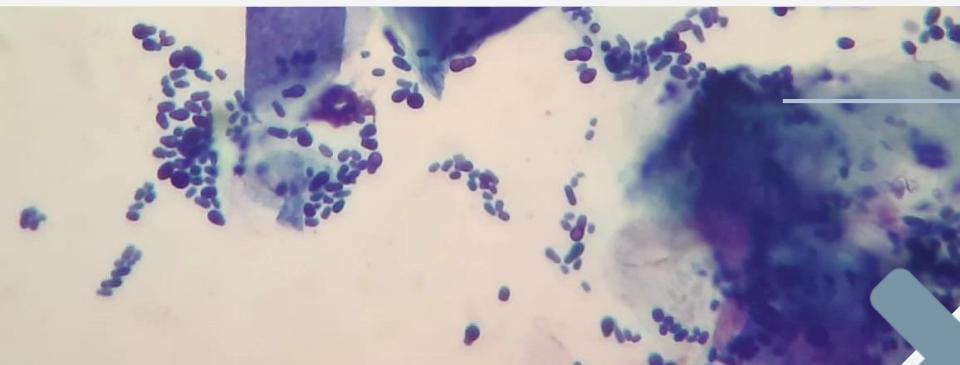








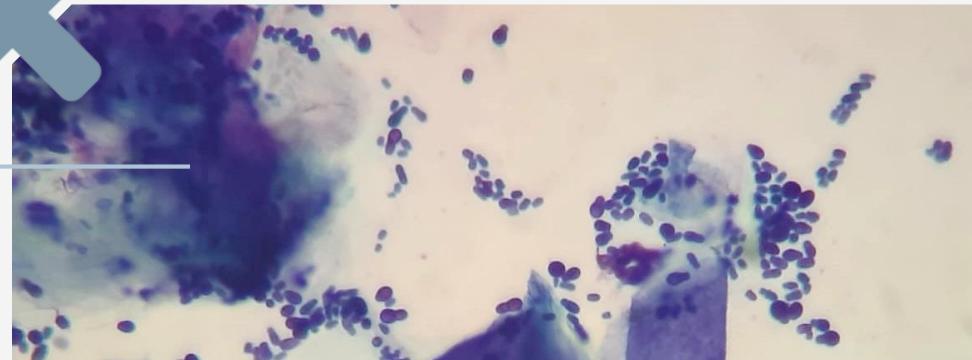
Patogenia



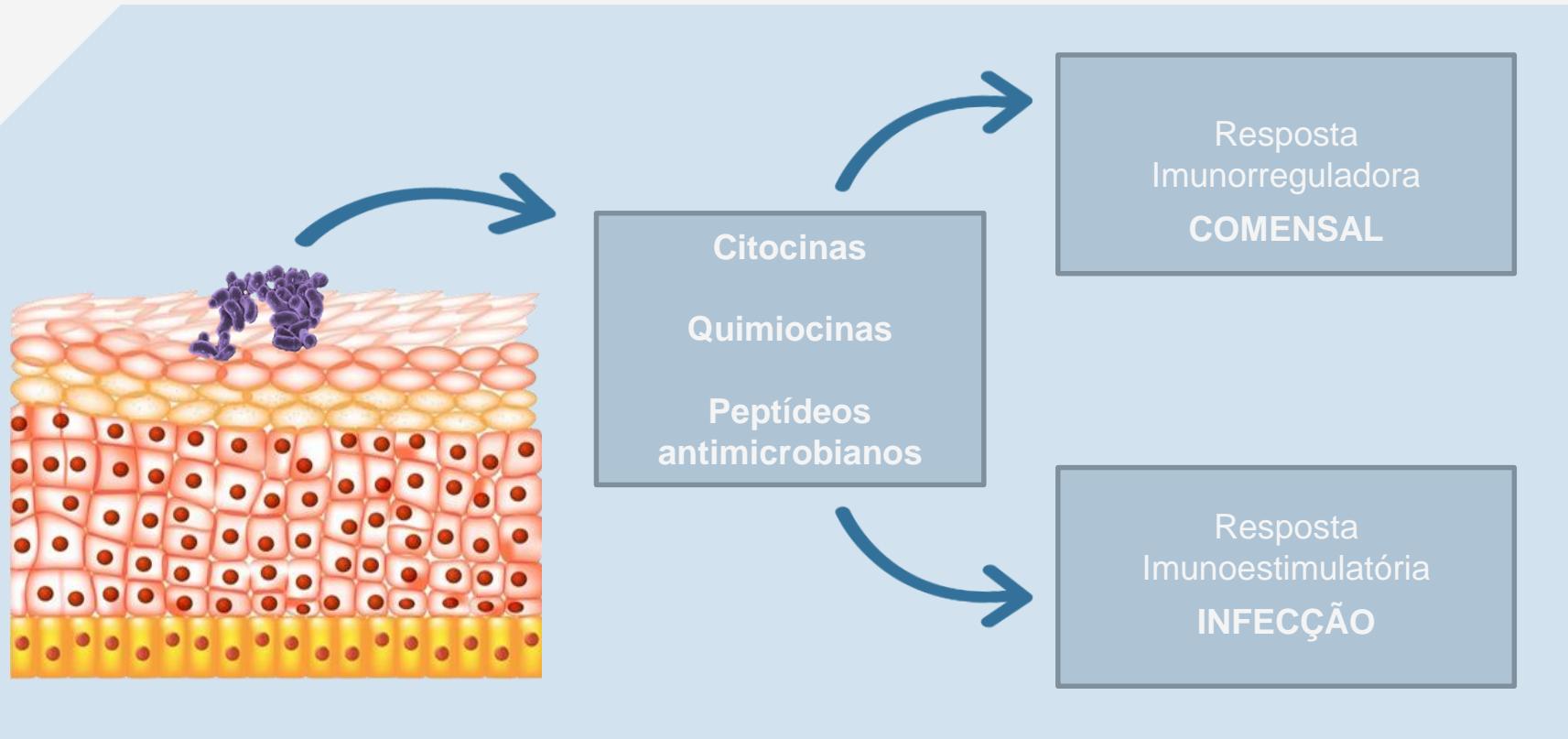
Infecção



Alergia



Patogenia



Malasseziose

Doenças alérgicas (Dermatite atópica)

Endocrinopatias

Distúrbios de queratinização

Dermatite de dobras (intertrigo)

Outras (neoplasias)

Patogenia: Relação com a dermatite atópica canina

Review Article

JAVMA | JUN 1, 2019 | VOL 254 | NO. 11

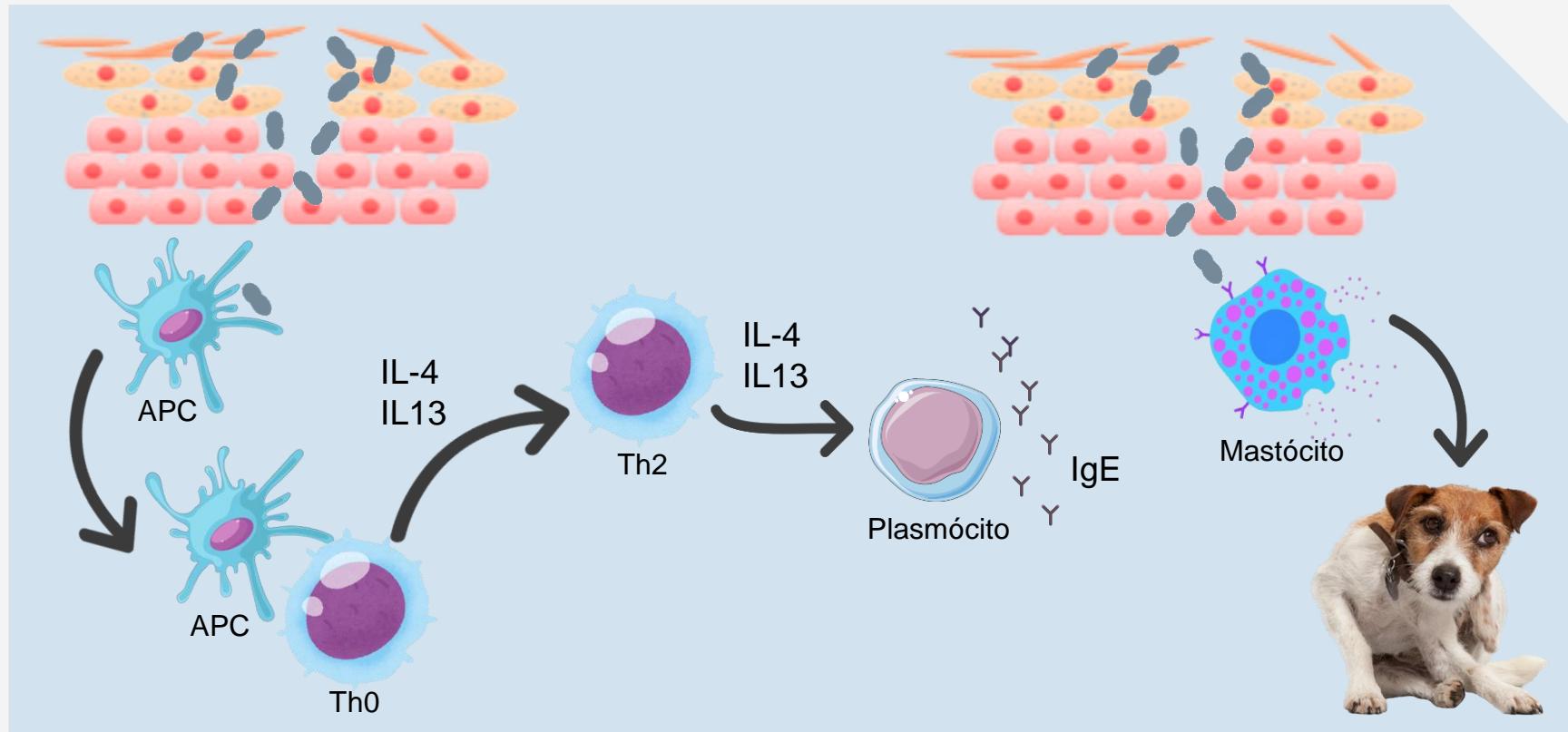
Update on pathogenesis, diagnosis, and treatment of atopic dermatitis in dogs

Timothy J. Nuttall BVSc, PhD
Rosanna Marsella DVM
Michele R. Rosenbaum VMD
Andrea J. Gonzales PhD
Valerie A. Fadok DVM, PhD

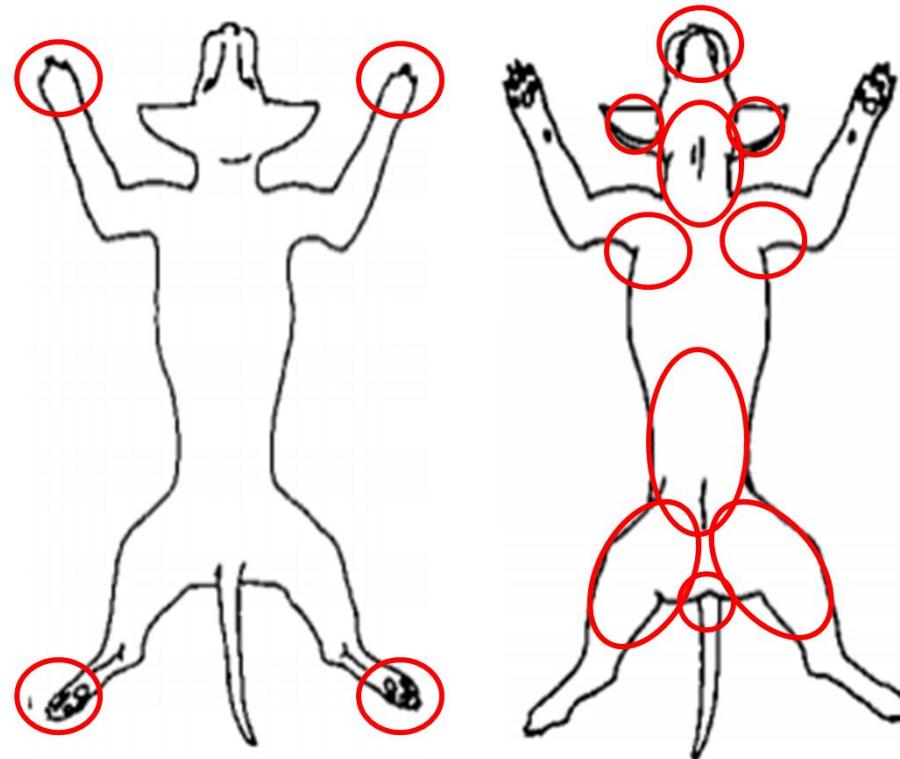
Improved understanding of the pathogenesis of atopic dermatitis in dogs has led to more effective treatment plans, including skin barrier repair and new targeted treatments for management of allergy-associated itch and inflammation. The intent of this review article is to provide an update on the etiologic rationale behind current recommendations that emphasize a multimodal approach for the management of atopic dermatitis in dogs. Increasing knowledge of this complex disease process will help direct future treatment options.

Atopic dermatitis in dogs is a common inherited chronic inflammatory skin disease involving abnormalities in skin barrier function and cutaneous inflammation, secondary staphylococcal and *Malassezia* skin and ear infections, and hypersensitivity to environmental allergens, food allergens, or staphylococcal or *Malassezia* allergens (or both pathogens).¹⁻³

Patogenia: Relação com a dermatite atópica canina



Sinais clínicos



Sinais clínicos

Veterinary Dermatology

DOI: 10.1111/j.1365-3164.2010.00909.x

***Malassezia* dermatitis in dogs in Brazil: diagnosis, evaluation of clinical signs and molecular identification**

Mauro L.S. Machado*, Laerte Ferreiro[†], Rafael R. Ferreira*, Luis G. Corbellini[‡], Manjula Deville[§], Madeleine Berthelemy[§] and Jacques Guillot[§]

of *Malassezia* appears to exacerbate clinical lesions in dogs.

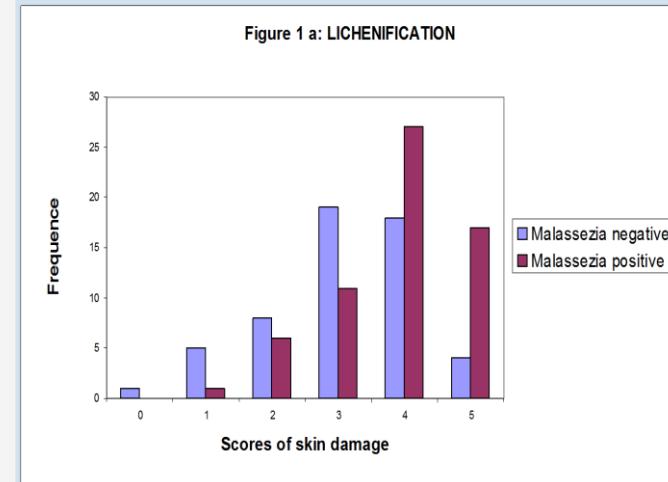
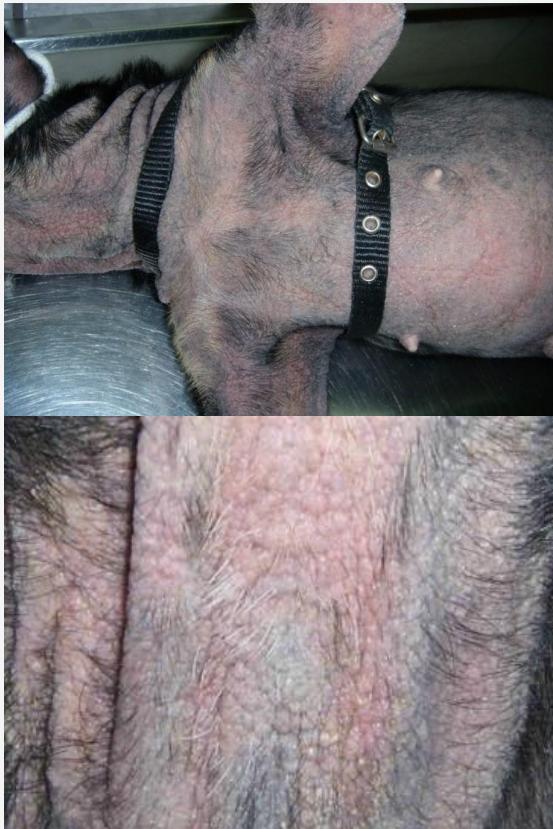
Accepted 24 March 2010

Vet. Dermatol. 2011, v.22, p. 46-52

n = 117 cães com DA

Positivos ou negativos para *Malassezia* X CADESI-03

Liquenificação

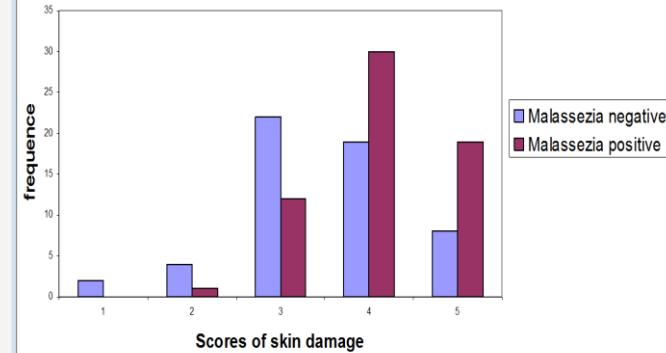


Estatisticamente significante $P < 0,05$

Eritema



Figure 1 b: ERYTHEMA

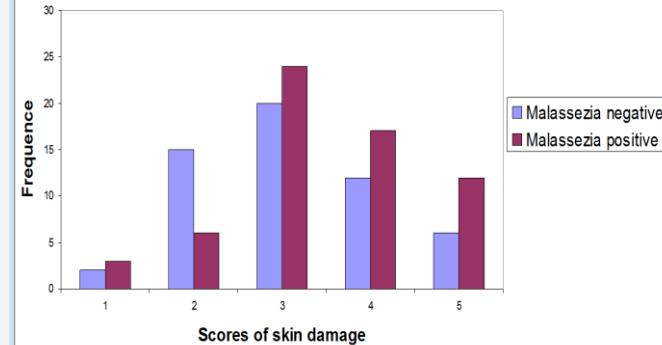


Estatisticamente significante $P < 0,05$

Escoriação

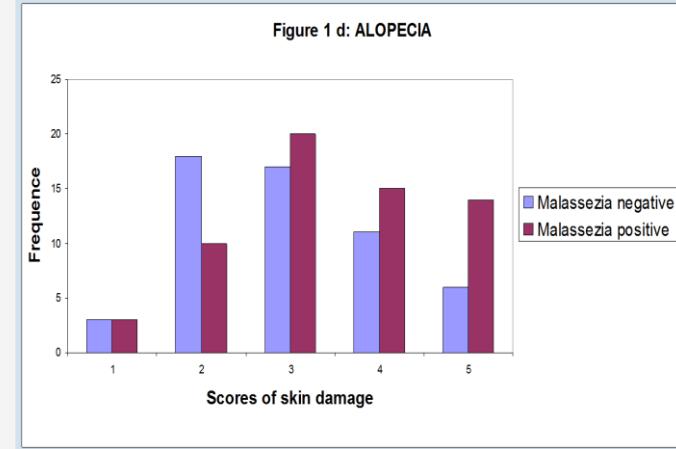


Figure 1 c: EXCORIATIONS



Estatisticamente não significante $p > 0,05$, porém...!

Alopecia autoinduzida



Estatisticamente significante $P < 0,05$

Diagnóstico

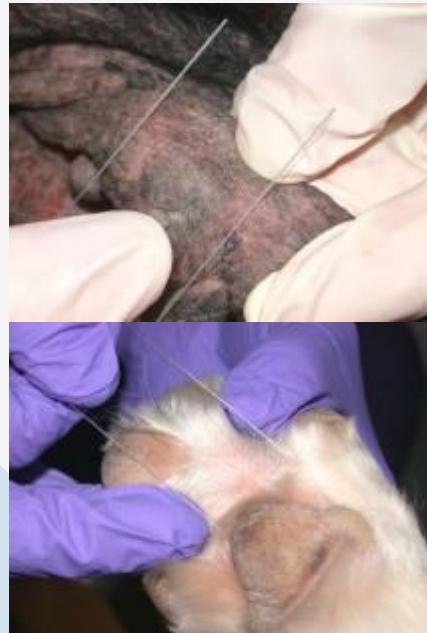
Diagnóstico de Malasseziose (overgrowth)



Diagnóstico de hipersensibilidade à Malassezia

Diagnóstico de Malasseziose (overgrowth)

Citología



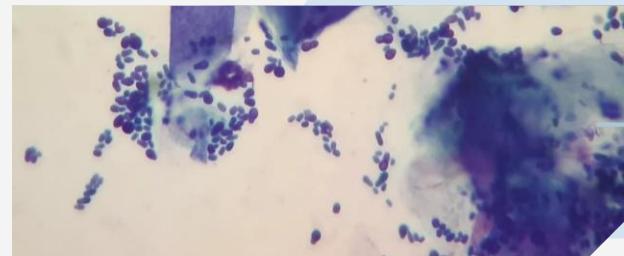
Diagnóstico de Malasseziose (overgrowth)

Citologia



Interpretação

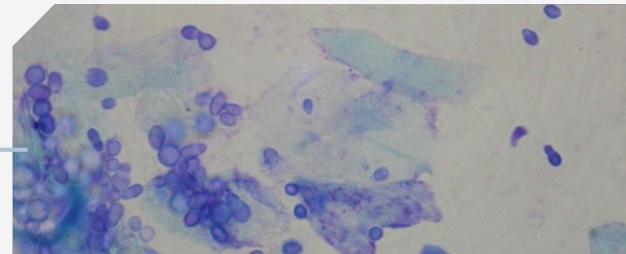
Número médio de
leveduras por campo



Conduto auditivo
 $> 5/\text{campo}$

Pele

$> 1/\text{campo}$



Diagnóstico de hipersensibilidade à Malassezia

Teste sorológico

[Vet Dermatol. 2014 Dec;25\(6\):507-11, e84-5. doi: 10.1111/vde.12159. Epub 2014 Aug 6.](#)

Comparison of the results of intradermal test reactivity and serum allergen-specific IgE measurement for Malassezia pachydermatis in atopic dogs.

[Oldenhoff WE¹, Frank GR, DeBoer DJ.](#)



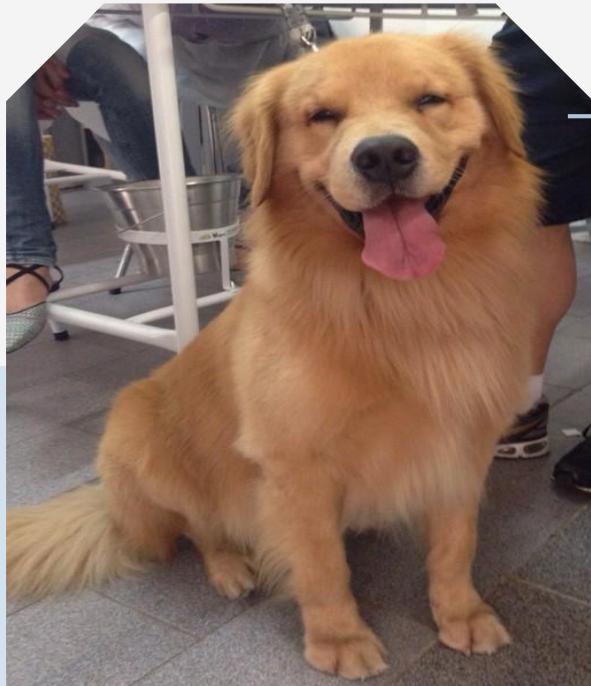
Sensibilidade - 77,0%

Especificidade - 89%

Com relação aos resultados de IDT.

Diagnóstico de hipersensibilidade à Malassezia

Teste intradérmico



Caso clínico

Golden, macho, 3 anos

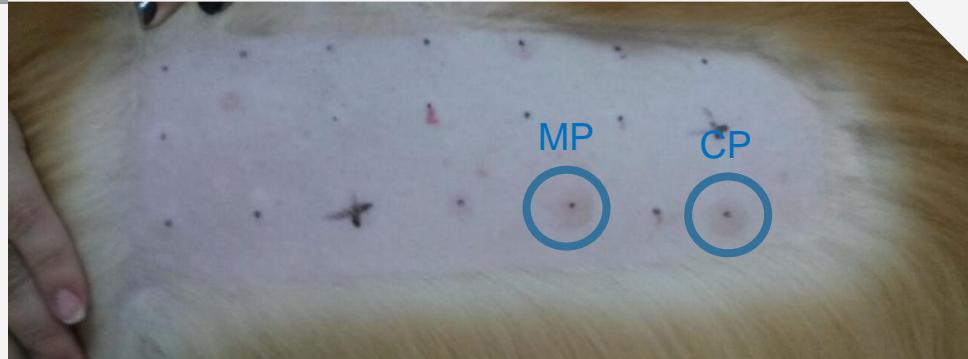
Citologia: 5 leveduras/campo

Sorologia: 800



Diagnóstico de hipersensibilidade à Malassezia

Teste intradérmico



Tratamento

- 01 Controle seborréico (quando houver) - tópico
- 02 Terapia repositora de lipídeos - tópico
- 03 Controle das disbioses – tópico
- 04 Controle do quadro inflamatório - sistêmico

Tratamento

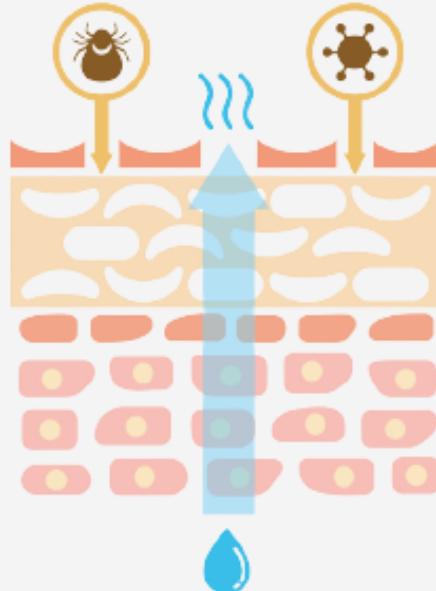
01 Controle seborréico (quando houver) - tópico

- Ac. Salicílico
- Enxofre
- Alcatrão
- Ophytrium

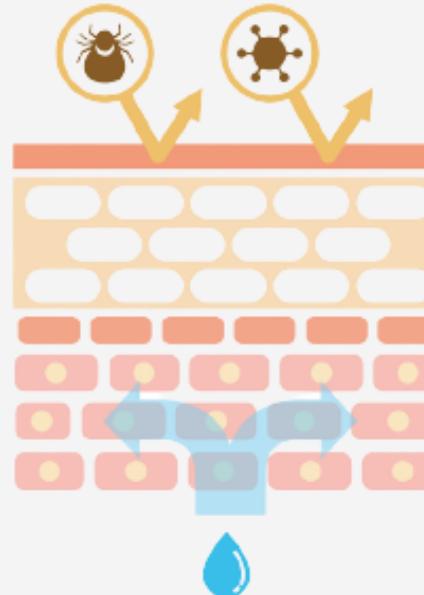
Tratamento

02 Terapia repositora de lipídeos - tópico

Reposição lipídica



Aeroalérgeno e irritantes



Tratamento

03

Controle das disbioses – tópico/sistêmico



Tópico

Clorexidine 3-4%

Clorexidine 2% + Miconazol 2%

Cetoconazol 2-3%

Banhos: 1-2x/sem.



Sistêmico

Cetoconazol / Itraconazol -

10 mg/kg/sid

Tempo: 4-8 semanas

Tratamento

04

Controle do quadro inflamatório - sistêmico

Veterinary Dermatology

Vet Dermatol 2019; 30: 87–90

DOI: 10.1111/vde.12740

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‡Department of Small Animal Medicine and Surgery, University of Georgia, 2200 College Station Road, Athens, GA 30602, USA

Editorial

Treatment of canine atopic dermatitis: time to revise our strategy?

hyperpigmentation) at different body locations. As the current canine AD treatment guidelines do not recog-

Phase I: Reactive Therapy = Induction of Remission



BREADTH OF TARGETING

oral ± topical glucocorticoids

oclacitinib

Phase II: Proactive Therapy = Prevention of Recurrences



<
allergen avoidance
±

proactive topical glucocorticoids
oclacitinib
immunotherapy lokivetmab

>
BREADTH OF TARGETING

ciclosporin

oral ± topical glucocorticoids

Review

Life-long diseases need life-long treatment: long-term safety of ciclosporin in canine atopic dermatitis



Tim Nuttall, BVSc, BSc, Cert VD, CBiol, MIBiol, PhD, MRCVS¹, Douglas Reece, DVM² and Elizabeth Roberts, DVM, PhD, DABT²

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Abstract

Ciclosporin (Atopica; Novartis Animal Health) has been licensed for canine atopic dermatitis (AD) since 2002. Adverse events (AEs) have been reported in 55 per cent of 759 dogs in 15 clinical trials, but are rare in pharmacovigilance data (71.81 AEs/million capsules sold). Gastrointestinal reactions were most common, but were mild and rarely required intervention. Other AEs were rare (<1 per cent in clinical trials; <10/million capsules sold). Hirsutism, gingival hyperplasia and hyperplastic dermatitis were rarely significant and resolved on dose reduction. Ciclosporin decreases staphylococcal and *Malassezia* infections in AD, and at the recommended dose is not a risk factor for other infections, neoplasia, renal failure or hypertension. The impact on glucose and calcium metabolism is not clinically significant for normal dogs. Concomitant treatment with most drugs is safe. Effects on cytochrome P450 and MDR1 P-glycoprotein activity may elevate plasma ciclosporin concentrations, but short-term changes are not clinically significant. Monitoring of complete blood counts, urinalysis or ciclosporin levels is not justified except with higher than recommended doses and/or long-term concurrent immunosuppressive drugs. Ciclosporin is not a contraindication for killed (including rabies) vaccines, but the licensed recommendation is that live vaccination is avoided during treatment. In conclusion, ciclosporin has a positive risk-benefit profile for the long-term management of canine AD.



Glucocorticosteroids and ciclosporin do not significantly impact canine cutaneous microbiota

Giovanni Widmer^{1*} , Lluís Ferrer², Claude Favrot³, Judy Paps⁴, Kevin Huynh¹ and Thierry Olivry⁴

Abstract

Background: As prednisone and ciclosporin can have immunosuppressive effects and have been considered potential predisposing factors for skin infections, we investigated the impact of these drugs on the diversity of the cutaneous microbiota, the abundance of *Malassezia* and infection with *Papillomaviruses*.

Results: Six atopic, asymptomatic Maltese-beagle dogs were treated with ciclosporin for one month and then with prednisone for another month, with a one-month wash-out between treatments. The dogs were sampled on the abdomen and pinna before and after each treatment using a swab. Samples for *Papillomavirus* detection were obtained with cytobrush sticks. The bacterial microbiota was characterized using 16S amplicon high-throughput sequencing. *Malassezia* populations were quantified with nested real-time PCR targeting the ribosomal internal transcribed spacer 1. The diversity and composition of cutaneous microbiota was not impacted in a detectable manner by any of the treatments. As observed for the bacterial microbiota, *Malassezia* populations were not affected by treatment. Three dogs were positive for *Papillomavirus* at more than one timepoint, but an association with treatment was not apparent.

Conclusions: Ciclosporin and prednisone at doses used for the treatment of atopic dermatitis do not impact the canine cutaneous microbiota in a detectable manner.

Keywords: Prednisone, Ciclosporin, 16S amplicon sequencing, Microbiota, *Malassezia*, *Papillomavirus*, Principal coordinates analysis

Considerações finais

- 1 Entender bem a função de barreira cutânea na DAC
- 2 Controle seborréico (quando houver) - tópico
- 3 Controle do quadro inflamatório - terapia sistêmica
- 4 Controle das disbioses - terapia tópica
- 5 Reposição lipídica - terapia tópica



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