

Gamasoidosis illustrated - From the nest to dermoscopy *

Gamasoidose ilustrada - Do ninho à dermatoscopia

Carlos Gustavo Wambier¹

Sarah Perillo de Farias Wambier²

Abstract: Gamasoidosis (acaríasis, avian-mite dermatitis or bird-mite dermatitis) is a challenging diagnosis that is becoming more common because of the frequent use of window air conditioners in tropical countries. These devices may serve as shelters for nests of urban birds such as pigeons. Dermatologists should become familiar with this infestation to establish the correct diagnosis and treatment.

Keywords: Ectoparasitic infestations; Mite infestations; Mites

Resumo: Gamasoidose (acaríase, infestação por "piolhinho-de-pombo" ou dermatite por ácaros aviários) é um diagnóstico desafiador que está se tornando mais comum devido ao uso frequente de aparelhos de ar-condicionado de janela em países tropicais, que servem de abrigo para ninhos de pássaros urbanos tais como pombos. Dermatologistas devem se familiarizar com esta infestação para fazerem diagnóstico e tratamento adequados.

Palavras-chave: Ácaros; Ectoparasitoses; Infestações por ácaros

Gamasoidosis (acaríasis, avian-mite dermatitis or bird-mite dermatitis) is a frequently unrecognized ectoparasitosis.^{1,6} In contrast to scabies, mites spare interdigital spaces, axillae, and genitalia and cannot be found in human skin because they leave the host after feeding.² Nosocomial infestations have been reported.^{4,5} Urban gamasoidosis is becoming common in tropical countries because of the frequent use of window air conditioners, which serve as shelters for bird nests.

These photos illustrate gamasoidosis in an apartment where two people lived. Patients presented with unexplained chronic pruritus in the neck and shoulders for 3 months, with occasional signs of dermographism and excoriations (Figure 1). The symptoms were relieved with antihistamines, as initial diagnosis was an urticarial reaction.

A specimen was taken to the dermatologist's office by one patient immediately after he found an unrecognizable "dot" when searching his neck after a "crawling" sensation. Dermoscopy revealed an avian



FIGURE 1: Gamasoidosis. Occasional urticarial plaques (black arrow tips). Arrow illustrates excoriated papule

Received on 27.07.2011.

Approved by the Advisory Board and accepted for publication on 26.12.2011.

* Work conducted at the School of Medicine of Ribeirão Preto – University of São Paulo (FMRP-USP) – Ribeirão Preto (SP), Brazil.

Conflict of interest: None

Financial funding: None

¹ M.D., Ph.D.; Dermatologist - Division of Dermatology, School of Medicine of Ribeirão Preto - University of São Paulo (FMRP-USP) – São Paulo (SP), Brazil.

² M.D.; Ophthalmologist and Oculoplastic Surgeon - PhD Student - School of Medicine of Ribeirão Preto - University of São Paulo (FMRP-USP) – São Paulo (SP), Brazil.



FIGURE 2: Dermoscopy of an avian mite. Dermoscopy (10x) of an avian mite measuring 1 mm in the surface of the fingertip



FIGURE 3: March of the avian mites. Avian mites crawled from the air-conditioning window unit to the wall at night to feed. The black arrow tips illustrate how difficult it is to notice the 1 mm mites. White background accentuates contrast. In a dark background, they become virtually invisible to the naked eye



FIGURE 4: Empty pigeon nest inside the air-conditioning unit. An empty nest full of avian mites was found inside the air-conditioning unit

mite, further identified as *Ornithonyssus bursa* (Figure 2).⁷ The bedroom window air conditioner was found to be the source of hundreds of these mites (Figure 3). After the removal of the device, a pigeon nest was found (Figure 4). Symptoms resolved after the air conditioner was cleaned and a chain-link fence was put into place to prevent future nesting.

Gamasoidosis is a challenging diagnosis. This infestation can be caused by various mites, such as: *Ornithonyssus sylviarum* (northern fowl mite), *Ornithonyssus bursa* (tropical fowl mite), *Dermanyssus gallinae* (red mite), and *Dermanyssus avium*. Dermoscopic identification criteria to differentiate mites are still to be described. Dermoscopy may assist in ruling out the diagnosis of parasitosis delirium. □

REFERENCES

1. Kowalska M, Kupis B. Gamasoidosis (gamasidiosis)-not infrequent skin reactions, frequently unrecognized. *Pol Med Sci Hist Bull.* 1976;15-16:391-4.
2. Orton DJ, Warren LJ, Wilkinson JD. Avian mite dermatitis. *Clin Exp Dermatol.* 2000;25:129-31.
3. Lucky AW, Sayers C, Argus JD, Lucky A. Avian mite bites acquired from a new source--pet gerbils: report of 2 cases and review of the literature. *Arch Dermatol.* 2001;137:167-70.
4. Regan AM, Metersky ML, Craven DE. Nosocomial dermatitis and pruritus caused by pigeon mite infestation. *Arch Intern Med.* 1987;147:2185-7.
5. Bellanger AP, Borjes C, Foulet F, Bretagne S, Botterel F. Nosocomial dermatitis caused by *Dermanyssus gallinae*. *Infect Control Hosp Epidemiol.* 2008;29:282-3.
6. Schulze KE, Cohen PR. Dove-associated gamasoidosis: a case of avian mite dermatitis. *J Am Acad Dermatol.* 1994;30:278-80.
7. Ribeiro VLS, Moojen V, Telles APD. *Ornithonyssus bursa*: parasito de aves causando acariases cutâneas em humanos no Rio Grande do Sul, Brasil. *An Bras Dermatol.* 1992;67:31-4.

MAILING ADDRESS:

Carlos G. Wambier, MD
Division of Dermatology, Department of Internal
Medicine, School of Medicine of Ribeirao Preto -
University of Sao Paulo - Hospital of Clinics FMRP-
USP, 4th floor
Av. Bandeirantes 3900
14049-900 Ribeirao Preto, SP
E-mail: cwambier@usp.br

How to cite this article: Wambier CG, Wambier SP. Gamasoidosis illustrated - From nest to dermoscopy. *An Bras Dermatol.* 2012;87(6):926-7.