

# **BACTERIOLOGICAL RESOLVE OF PYODERMA** ASSOCIATED WITH CANINE DEMODICOSIS WITHOUT ANTIBIOTIC/ANTISEPTIC THERAPY

Martínez S<sup>1,2,3</sup>, Cacciato CS<sup>2,4</sup>, Fogel F<sup>1,3</sup>, Maté ML<sup>2</sup>, Sánchez Bruni S<sup>2</sup>, Del Sole MJ<sup>1,2,3</sup>

<sup>1</sup> Hospital Escuela de Pequeños Animales (HEPA), Departamento de Clínica, Facultad de Ciencias Veterinarias (FCV), Universidad Nacional del Centro de la <sup>2</sup> Centro de Investigación Veterinaria Tandil (CIVETAN) CIC-CONICET-FCV-UNCPBA. Tandil, Buenos Aires.

<sup>3</sup> Grupo de Medicina Veterinaria Traslacional (MEVET) FCV-UNCPBA. Tandil, Buenos Aires

<sup>4</sup>Laboratorio de Microbiología Clínica y Experimental, CIVETAN-FCV-UNCPBA. Tandil, Buenos Aires.

#### **INTRODUCTION**

Generalized canine demodicosis is a disease caused by *Demodex* spp. commonly associated with infection by Staphylococcus spp., normal inhabitants of the skin of dogs. Both microorganisms proliferate within the hair follicles causing folliculitis and furunculosis. In the past, systemic antibiotic therapy was supported for all dogs with secondary bacterial infection. Nowadays, as the incidence of skin infections with multi-resistant bacteria is increasing, a judicious use of systemic antibiotics is recommended.

### **OBJECTIVE**

The goal was to evaluate the clinical and bacteriological cure of dogs with generalized demodicosis treated exclusively with miticidal, without antibiotic or antiseptic therapy.

### **MATERIALS & METHODS**

Four patients with pustular demodicosis diagnosed by skin scraping and cytology were admitted for their attention at the Teaching Hospital of Small Animals (HEPA). On day 0, the animals were evaluated by a clinical score and skin bacteria samples were obtained by swabs from lesions.

Non-antibiotic treatment:

- 2 dogs: oral afoxolaner 2.7-6.9 mg/kg on day 0 and day 28.
- 2 dogs: oral ivermectin 0.5 mg/kg/24 h oral for 63 days.

On days 14, 35 and 56 post-treatment, clinical scores were recorded, cytology samples and swabs from skin lesions were obtained and stored in Stuart medium up to overnight growth on Tryptic Soy Agar medium with 10% sterile bovine blood. Phenotypic identification: conventional biochemical techniques.

#### RESULTS

Clinical score decreased considerably throughout the treatment (Figure 1 and Picture 1). Staphylococcus spp. were isolated from skin samples in all dogs on days 0 and 14 post treatment. However, the cultures became negative in all dogs at day 56 post-treatment.





Picture 1. Clinical evolution of a canine with demodicosis treated with IVM (HC347-HEPA). A Day 0 or initial day and B Day 56 after treatment.

## **CONCLUSION**

These preliminary results propose that pyoderma associated with canine demodicosis could resolve clinically, cytologically and bacteriologically with single miticidal therapy, avoiding systemic antibiotics.