

13th EUROPEAN MULTICOLLOQUIUM OF PARASITOLOGY

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changing climate
changing parasites

Programme
& Abstract
Book

Belgrade, Serbia
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PROGRAMME
&
ABSTRACT BOOK

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Editors:
Ivana Klun & Olgica Djurković-Djaković

Layout and prepress:
Olivera Popović



Organizer:
SERBIAN SOCIETY OF PARASITOLOGY
Belgrade, Serbia, Bulevar oslobodjenja 18/I, rm. 111
E: dps@imi.bg.ac.rs, T: +381 11 2685 788, ext. 106, W: www.parazit.org.rs



EMOP2021 Secretariat:
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Belgrade, Serbia, Svetozara Markovića 81/5
W: www.congrexpo.co.rs

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DIAGNOSIS AND EPIDEMIOLOGY OF VISCERAL LEISHMANIASIS

VL1

FELINE LEISHMANIASIS: SEROLOGICAL AND MOLECULAR DETECTION OF AN EMERGENT DISEASE IN A NON-ENDEMIC AREA OF NORTHERN ITALY

Eva SPADA¹, Daniela PROVERBIO¹, Federica BRUNO², Germano CASTELLI², Viviana VALENZA², Roberta PEREGO¹, Luciana BAGGIANI¹, Fabrizio VITALE²

¹Dipartimento di Medicina Veterinaria (DIMEVET), Università degli Studi di Milan, via dell'Università 6, 26900 Lodi, Italy

²Centro di Referenza Nazionale per le Leishmaniosi (C.Re.Na.L), Istituto Zooprofilattico Sperimentale (IZS) della Sicilia A. Mirri, Via G. Marinuzzi 3, 90129 Palermo, Italy; federica.bruno@izssicilia.it

Background. In recent decades feline leishmaniosis (FeL) has become an emerging disease, also in non-endemic areas for the canine infection.

Objectives. This study updates the epidemiological status for FeL in cats in northern Italy and compares results with previous studies of the same feline population. Co-infections with feline retroviruses FIV and FeLV were also investigated.

Material and Methods. Stray, shelter and owned cats from different cities in the Lombardy region of northern Italy, were prospectively randomly sampled between January 2020 and May 2021. A total of 255 cats were tested for *L. infantum*: 240/255 for antibodies by IFAT and 234/255 and 198/255 for *Leishmania* DNA by PCR on whole blood and lymph nodes, respectively. Rapid ELISA test was used to detect FIV or FeLV infection.

Results. Overall, 26/255 (10.2%) cats tested positive for *L. infantum*: in 8/26 cats *Leishmania* DNA was found in popliteal lymph nodes (*leishmania/ml* range from 15 to 60), 6/26 were PCR positive on whole blood (*leishmania/ml* range from 5 to 80) and 15/26 IFAT seropositive at titers ranging from 1:80 to 1:320 (Table 1). Two *Leishmania* infected cats were also FIV+FeLV coinfecting, another was FIV positive and one was FeLV positive.

Table 1. Epidemiological data on feline leishmaniosis in studies performed in Lombardy region of northern Italy

Variable	Spada et al 2014	Spada et al 2016	Spada et al 2020	Current study
Years	2008-2010	2014	2016-2018	2020-2021
Population	233 stray cats	90 stray cats	117 stray cats	255 (160 stray, 43 shelter, 52 owned cats)
FeL overall prevalence	9.0%	12.2%	8.6%	10.2%
IFAT overall seropositivity	21/233 (9.0%)	11/90 (12.2%)	5/102 (4.9%)	15/240 (6.3%)
PCR overall positivity	0 (0.0%)	2 (2.2%)	5/115 (4.4%)	14/234 (6.0%)

Conclusion. A high prevalence of FeL was found in a non-endemic area of northern Italy, with an increasing trend in infection rates.

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VL3

DEVELOPMENT OF ENHANCED SENSITIVITY TOOLS TO MONITOR *Leishmania* INFECTION

Alissa MAJOOR^{1*}, Alexandre PERRONE¹, Pierre MARTY^{1,2}, Laurent BOYER¹, Christelle POMARES^{1,2}, Grégory MICHEL¹

¹Université Côte d'Azur, C3M Inserm, U1065, Nice Cedex3, France; ²Service de Parasitologie-Mycologie, Centre Hospitalier Universitaire de Nice, 06202 Cedex 3 France; *Alissa.MAJOOR@univ-cotedazur.fr

Background. Leishmaniasis are neglected tropical diseases caused by an intracellular protozoan parasite transmitted by female phlebotomine sandflies. Each year this disease causes 30 000 deaths worldwide. Different forms exist, showing gradual severity: a cutaneous form conferred by *L. major*, a mucocutaneous form, and a visceral form conferred by *L. infantum*, which is fatal when left untreated. Today only few treatments are available, and they present issues of toxicity, high risks of relapse and emerging resistance.