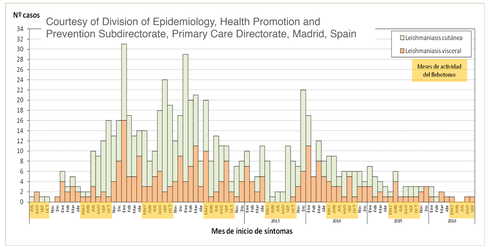
Asymtomatic Infection in a HIV Cohort With High Exposure to *Leishmania.* Leishmaniasis Outbreak in Fuenlabrada, Spain.

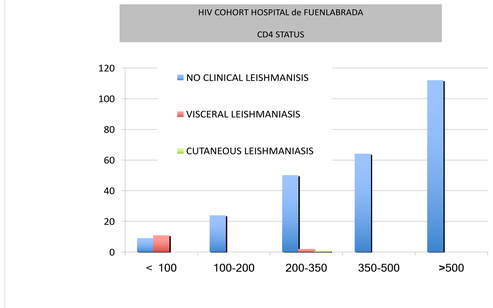
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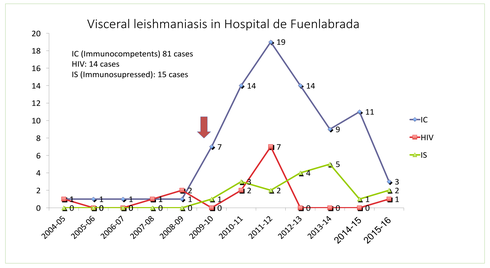
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The largest leishmaniasis outbreak in Europe declared since June 2009 in Fuenlabrada (Madrid, Spain)







OBJECTIVE

- Estimate the prevalence of **asymptomatic *Leishmania* infection** in the HIV cohort of Fuenlabrada in this high exposure setting
- Analyze the **risk factors for the development of visceral leishmaniasis**

METHODS

583 patients of the HIV Cohort Hospital de Fuenlabrada (including 13 with visceral and 2 with cutaneous leishmaniasis) were followed since 1st June 2004 to 31th December 2015.

During 2015, 135 representative patients were selected for test to *Leishmania,* including 12 symptomatic patients (10 visceral and 2 cutaneous).

Infected patient: positive result in, at least, one of following blood tests for *Leishmania*:

- Blood PCR (DNA for *Leishmania*)
- Serology (ELISA or IFAT)
- SLA (stimulation to *Leishmania* antigen) lymphoproliferative test as marker of cellular immunity

Statistical tests looking for risk factors:

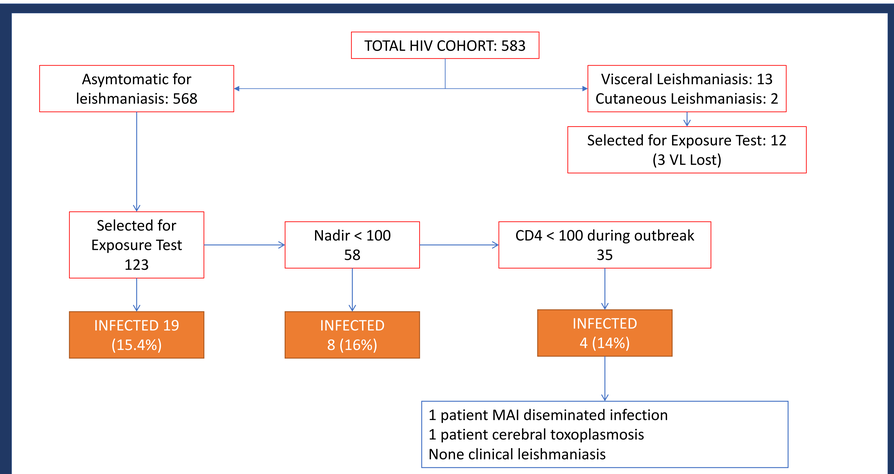
- Infected vs not infected patients
- Visceral leishmaniasis vs asymptomatic infected

CONCLUSIONS

- After leishmaniasis outbreak, **15.4%** of our HIV Cohort patients have been infected by *Leishmania,* but are asymptomatic
- Patients with **both negative SLA test and positive PCR/serology** are in high risk for visceral leishmaniasis, reflecting the absence of specific immune response to *Leishmania*

RESULTS

	HIV Cohort (n= 445)	Selected sample (n= 135)	p
Gender male (%)	66	72	0.2
Median age at HIV diagnosis (media ± SD)	32.7 ± 10.4	33.9± 11.5	NS
Subsaharian origin (%)	28	24	0.5
Diabetes (%)	4	3	0.6
Active HBV (%)	7	7	0.8
HCV coinfection (%)	33	28	0.3
Without HAART (%)	1	1	0.8
Irregular HAART adherence (%)	29	29	0.9
Last viral load over 50 copies/ml (%)	19	13	0.2
CD4 nadir under 100 (%)	26	43	**0.01**



Total prevalence of the cohort, including symptomatic, was estimated 17.5%.

135 selected sample: 123 asymptomatic, 10 visceral, 2 cutaneous

Risk factors for infected patient (31 patients: 12 symptomatic and 19 asymptomatic) vs not infected patients (104 patients)

Univariate analysis	Infected (n=31)	Not infected (n=104)	p
Male gender (%)	80	69	0.260
Age (mean)	43	45	0.470
Subsaharian (%)	32	22	0.210
Distance to park (Mean, m)	1082 (+ 898)	1719(+ 883)	0.017
Cirrhosis (%)	7	2	0.226
Irregular HAART adherence (%)	26	30	0.389
HVB active (%)	10	6	0.345
HVC (%)	23	29	0.330
Last viral load over 50 copies/ml (%)	7	14	0.358
CD4 nadir under 100 (%)	35	23	0.171

Multivariate analysis: Association between infected and **"distance of patient home to Bosquesur Park"** (considered the focus of the outbreak) (OR 1.001 (IC 95% 1.000-1.002), p=0.004

Risk factor for visceral leishmaniasis (13 patients) vs asymptomatic infected patients (19 patients)

Univariate analysis	Visceral leishmaniasis (n=13)	AST infected (n=19)	p
Male gender (%)	83	82	0.671
Age (mean)	43	43	0.940
Subsaharian (%)	33	29	0.568
Cirrhosis (%)	8	6	0.665
Irregular HAART adherence (%)	25	24	0.631
HVB active (%)	17	6	0.351
HVC (%)	17	29	0.422
Last viral load over 50 copies/ml (%)	8	6	0.799
CD4 nadir under 100 (%)	70	21	0.015
Negative SLA test (%)	40	0	0.001

Multivariate analysis: Association between visceral leishmaniasis and **"negative SLA test (with positive PCR or serology)"** (p<0,001, OR not calculable) and **"less than 100 CD4 during outbreak period"** (p=0,001, OR not calculable)