

# REAL WORLD EXPERIENCE WITH LEISHMANIASIS TREATMENT IN RURAL PANAMA

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## INTRODUCTION

Leishmaniasis is a neglected tropical disease caused by protozoa in the *Leishmania* genus which are transmitted by sandflies to mammalian hosts

Diagnosis and treatment remains difficult

- Patients are treated with a pentavalent antimonial such as meglumine antimonate (Glucantime™) in a dose of 20 mg/kg/body weight, intramuscularly for 20 days, according to the Panamanian guidelines for Leishmaniasis
- Treatment is characterized by a 20 day therapeutic course of intramuscular injections

## SPECIFIC AIM

Assess treatment compliance in a rural Panama clinic population to pentavalent antimonates through a review of patient records

## METHODS

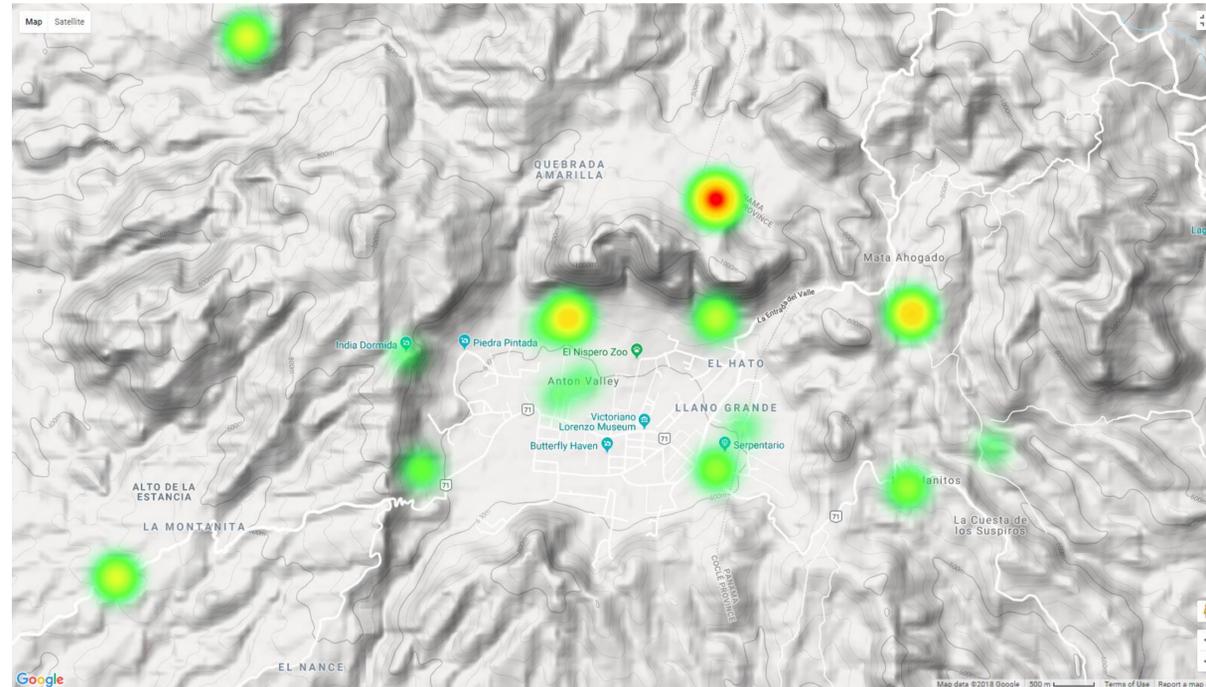
IRB approval was obtained at the Medical College of Wisconsin and from the regional health center

A retrospective cohort study using a database of clinical and epidemiological records of patients diagnosed with Leishmaniasis from 2010 to 2018 was conducted at the Centro de Salud de El Valle de Antón in Panama

- Data extracted and de-identified: age, sex, province, distance from clinic, socioeconomic status, type of lesion, lesion location and distribution, lesion size, number of lesions, comorbidities, method of diagnosis, histology and laboratory results, treatment, treatment duration recommended, and treatment duration completed

## RESULTS

Heat map showcasing geographical distribution of Leishmaniasis diagnosed at Centro de Salud of El Valle de Anton. Key hotspots are La Mesa which has the strongest heat marker followed by La Compañía and Mata Ahogado.



Leishmaniasis diagnoses (n=76) identified through a retrospective review of patient files. Data was extracted as available and relevant to pertaining study.

Cases by Month	Cases (N=76)	Year	Cases	Cases by Age	Cases	Comunidad	Cases (N=76)	Male (N=42)	Female (N=34)
January	8		Leishmaniasis	18-25	23	Alto de la Estancia	5	5	0
February	8	2010	19	25-35	20	Caballero	2	0	2
March	5	2011	11	35-45	13	Capirita	4	2	2
April	6	2012	8	45-60	11	Chiguiri Arriba	1	1	0
May	10	2013	12	60+	9	El Hato	4	1	3
June	7	2014	10			El Macano	2	2	0
July	8	2015	9			Jordanal	2	1	1
August	6	2016	8			La Central	1	1	0
September	3	2017	0			La Compañía	9	3	6
October	5	2018	2			La India	1	0	1
November	4					La Mesa	18	10	8
December	8					La Pintada	6	3	3
						La Reforma	2	1	1
						Loma Grande	5	3	2
						Los Llanitos	3	2	1
						Mata Ahogado	9	6	3
						Rio de Jesus	1	0	1
						Rio Indio	1	1	0

## DISCUSSION

Data and Heat map analysis highlight strongest prevalence of Leishmaniasis, which can indicate higher prevalence of infected vectors in that zone

- Prevalence has steadily declined since 2010

Limiting sample size to adults decreased sample size; significant numbers of infected patients are youth

Several obstacles as incomplete data charts, lack of follow up, and illegible handwriting hindered ability to attain data

- lack of data for 2017 and 2018 may be attributed to clinic's recent transition to electronic data system where patient records were lost

## CONCLUSION

Data analyzed on Leishmaniasis show a decreasing number of patients seeking treatment over the years; with many seeking alternatives to the 20 day treatment course; geospatial analysis showcases the heat zones have continued to have high incidence of Leishmaniasis despite less patients being identified

## NEXT STEPS

Surveying communities identified to have larger prevalence of Leishmania may provide valuable data on patient perceptions toward treatment and where patients go to seek care

## ACKNOWLEDGEMENTS

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