



**INSTITUTE  
OF TROPICAL  
MEDICINE  
ANTWERP**

# A transcontinental dermatological case

MEETING TROPICARE 25/11/2024

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## Kala, 43-year-old

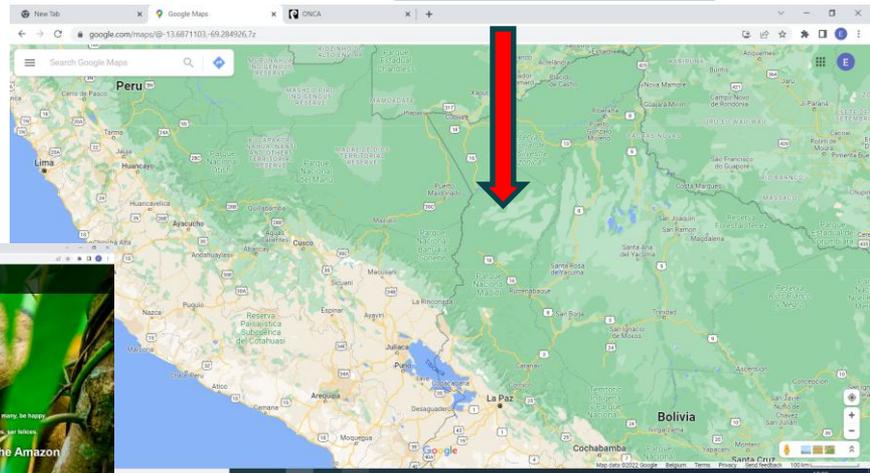
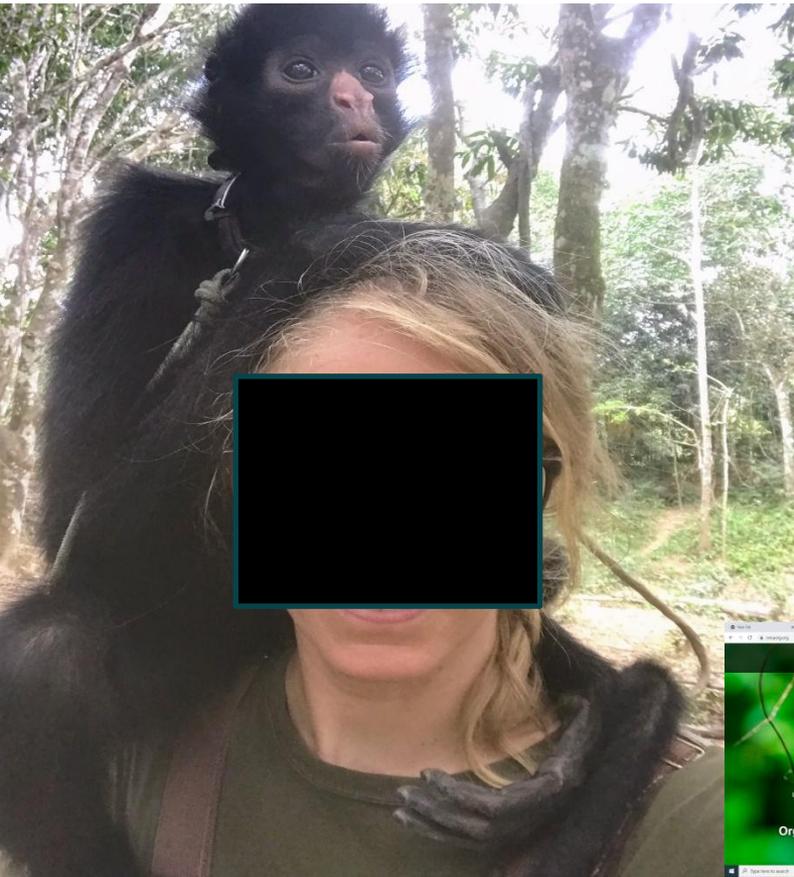


**BELGIAN LIVING IN CANADA (NEW BRUNSWICK)**

**TRIP TO BOLIVIA (ONCA RESERVE, RESCUE CENTER FOR WILDLIFE; 20 MINUTES BY BOAT FROM RURRENABAQUE): 6 WEEKS**

**BITTEN BY A DOG, SPIDER AND CAPUCINE MONKEYS, TICKS AND SANDFLIES**

# Kala, 43-year-old



# Kala, 43-year-old

BACK TO CANADA

MULTIPLE PERSISTING INSECT BITES (FACE,...)

THREE NON-HEALING LESIONS RIGHT ARM



## Kala, 43-year-old, retrospective pictures



**BACK TO CANADA**

**MULTIPLE PERSISTING INSECT BITES  
(FACE,...)**

**NEXT MONTHS THREE NON-HEALING  
LESIONS:**

- **RIGHT ARM (WRIST, LOWER ARM AND  
UPPER ARM)**

**SELF-DIAGNOSIS VIA GOOGLE**

## Kala, 43-year-old, pictures at ITM: your diagnosis?

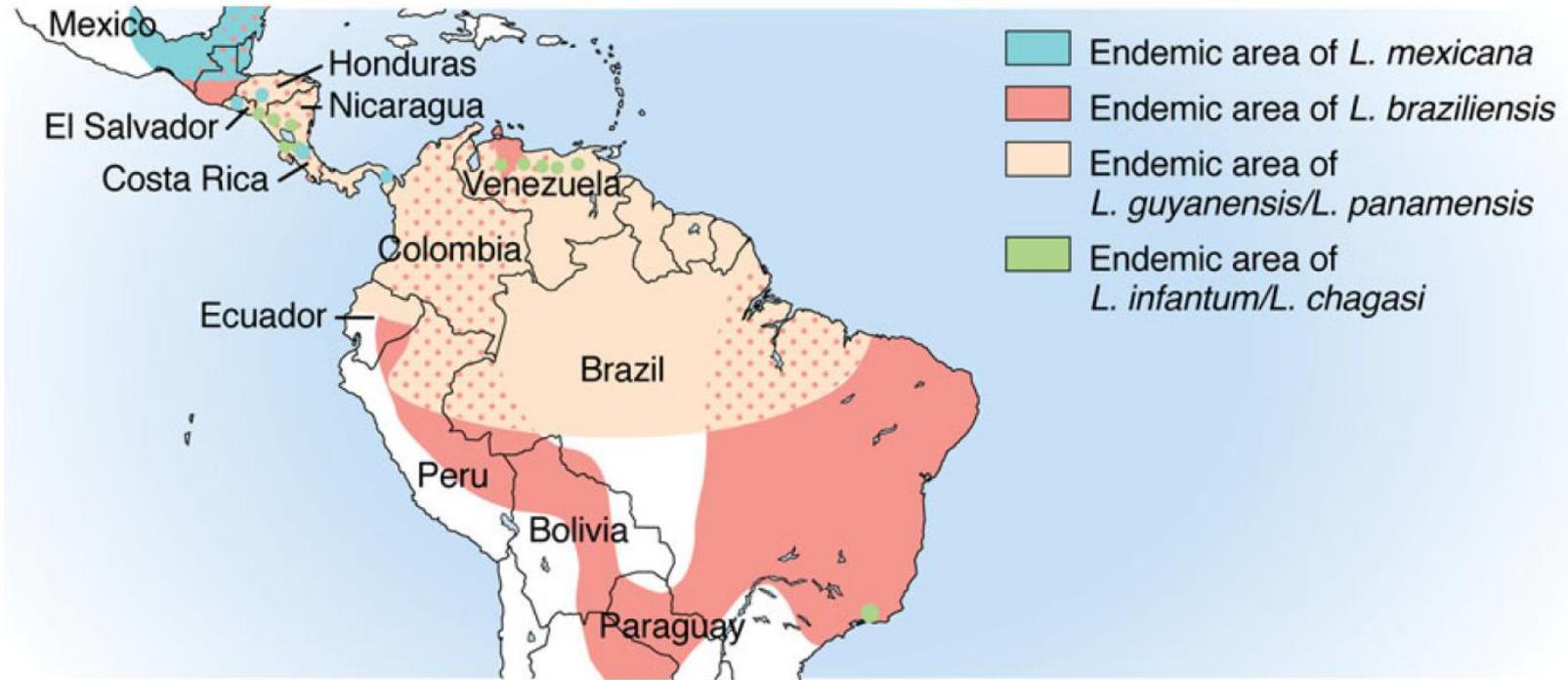


Right lower arm



Right upper arm

# Epidemiology of New World leishmaniasis



# Kala, 43-year-old, treatment



Hematology/biochemistry: unremarkable

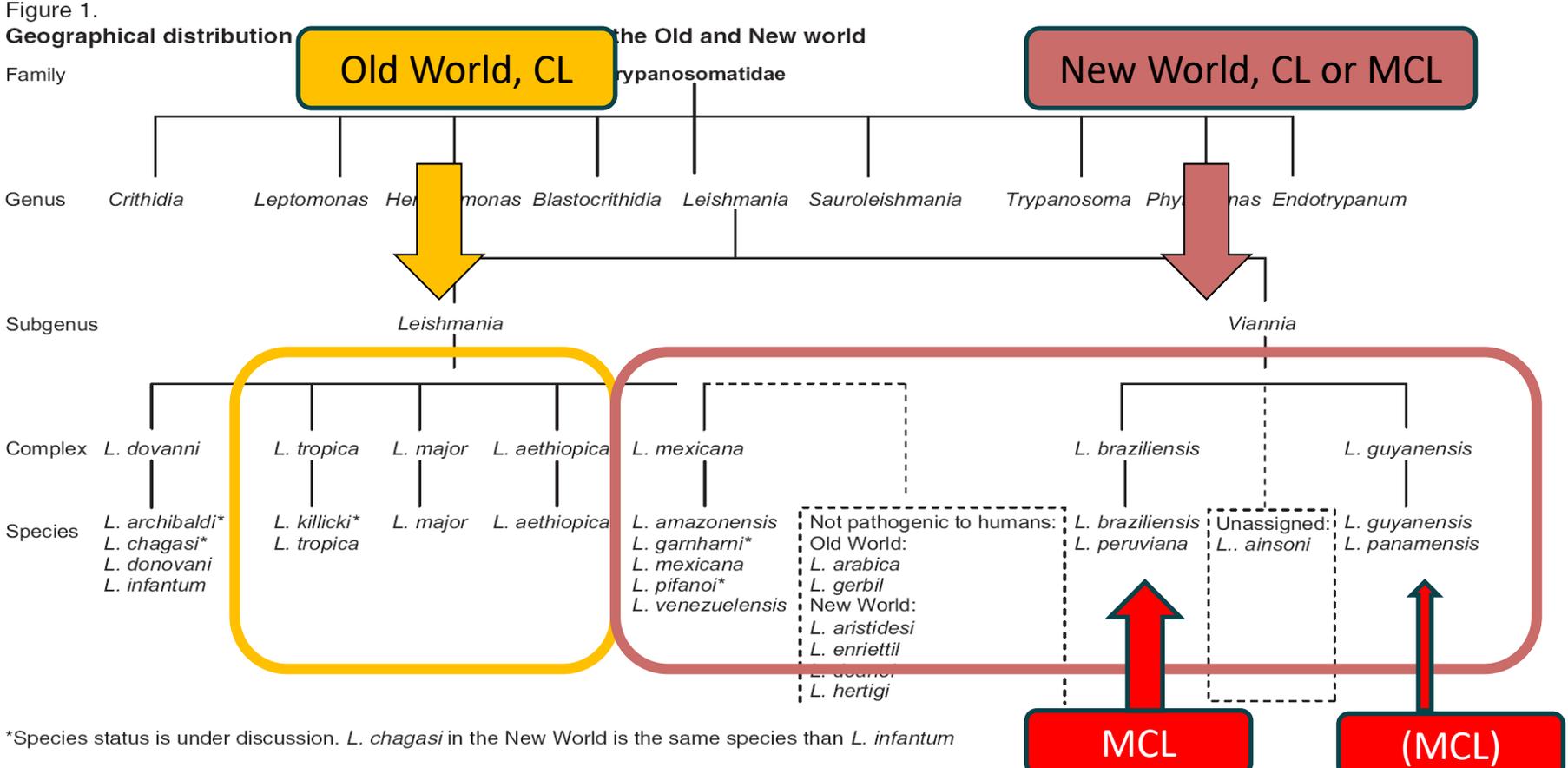
Anapath skin biopsy: not contributive

Direct examination *Leishmania*: negative

PCR: positive for *Leishmania (Viannia) braziliensis*

Serology *Leishmania* (positive)

# Cutaneous and muco-cutaneous leishmaniasis



# “Simple” or “complex CL”: discrepancies

Criteria	IDSA	Leishman group	ITMA
Size	>4 cm	>4-6 cm	>4 cm
Number of lesions	>4	>4	>4
Anatomic location	Face, ears, eyelids, lips, fingers, toes, joints, genitalia	“Delicate location”/ ‘cosmetically disfiguring’	Ears, eyelids, nose, lips, joints, fingers, toes
Mucosal involvement	Yes	Yes	Yes
Species causing MCL	Yes (Peru/Brazil/Bolivia)	Yes (Bolivia)	No
DCL/LR	Yes	Unclear	Yes
Subcutaneous nodules	Yes	Unclear	Yes
Lymphatic spread	Yes	Yes	Yes
Immunosuppression	Yes	Yes	Yes
Failure local therapy	Yes	Yes	Yes

Note: DCL: diffuse cutaneous leishmaniasis, LR: Leishmania recidivans

# Treatment CL : distinction “simple” - “complex”

## Local therapy

- Heat therapy
- Cryotherapy
- Ointment with paromomycine
- Intralesional injections of pentavalent antimonials
- (Photodynamic treatment)
- (Laser treatment)

Simple CL	Complex CL
Caused by a <i>Leishmania</i> species unlikely to be associated with mucosal leishmaniasis	Caused by a <i>Leishmania</i> species that can be associated with increased risk for ML, particularly <i>Viannia</i> spp in the “mucosal belt” of Bolivia, Peru, and Brazil <sup>a,b,c</sup>
No mucosal involvement noted	Local subcutaneous nodules <sup>d</sup>
Absence of characteristics of complex CL	Large regional adenopathy <sup>d</sup>
Only a single or a few skin lesions	>4 skin lesions of substantial size (eg, >1 cm)
Small lesion size (diameter <1 cm)	Large individual skin lesion (diameter ≥5 cm)
Location of lesion feasible for local treatment	Size or location of lesion such that local treatment is not feasible
Nonexposed skin (ie, not cosmetically important)	Lesion on face, including ears, eyelids, or lips; fingers, toes, or other joints; or genitalia
Immunocompetent host	Immunocompromised host (especially with respect to cell-mediated immunity)
Lesion(s) resolving without prior therapy	Clinical failure of local therapy
	Unusual syndromes: leishmaniasis recidivans, diffuse CL, or disseminated CL

## Systemic therapy

- Pentavalent antimonials
- Liposomal amphotericine
- Miltefosine
- Pentamidine
- (azoles)
- (amphotericine B)



# Kala, 43-year-old, treatment M6 after presentation



Simple cutaneous leishmaniasis  
due to *L. (V.) braziliensis*

Hematology/biochemistry: unremarkable

Anapath skin biopsy: not contributive

Direct examination *Leishmania*: negative

PCR: positive for *Leishmania (Vianna) braziliensis*

Serology *Leishmania* (positive)

Antimonial infiltrations 1-2x/week (5 times)

# Kala, 43-year-old, treatment

*Leishmania (Viannia) braziliensis* complex

Here, there is a 5 - 10% risk of delayed metastatic mucosal localizations. Treatment should therefore be more aggressive; observation is not an option, and local treatment should be an exception (only a few small lesions, with the necessity of long-term clinical follow-up).

## **Simple CL**

### First-line treatment

Intralesional infiltrations of antimonials (2 - 5 ml Glucantime® 1 - 3x/week up to 4 - 6 administrations) AND/OR cryotherapy (cure rate: 80%; grade B).

### Alternative regimens

15% paromomycin/12% methylbenzethonium chloride ointment BID for 10 - 20 days (cure rate: 90%; grade B - but not available in Belgium, see above).

NB: evidence grade A or B for all treatments; cure rate with local heat therapy is low (50%; grade D).

## **Complex CL**

### First-line treatment

Meglumine antimoniate 20 mg SbV/kg slow iv od x 20 days (cure rate: 95%; grade A).

### Alternative regimens

L-AmB total dose 20 mg/kg; 3 mg/kg Days 1 - 5 and 10 (cure rate: 85% grade B); consider “new” administration schedule.

Miltefosine 50 mg po tid x 28 days (efficacy about 75%, but inconsistent across the countries, much lower in Peru; grade C).



## Kala, evolution (Canada, M5 post treatment): satisfactory?



Wrist



Lower arm



Upper arm

Complex cutaneous leishmaniasis: non-response to local treatment

# Kala, evolution (Canada, M7 post treatment)



Wrist

Under liposomal  
amphotericin (Day 6)

Cured at Month 3  
(and 6)

# Another case: Donovan, 74-year-old



1st consult

Trip to Panama 2 weeks in January

Trip to India/Nepal 3 weeks in April

Chronic ulcer (not painful) since 4-5 months

Biopsy: granulomatous infiltration

PCR positive for *Leishmania (V.) braziliensis*



# Another case: Donovan, 74-year-old



Month 1

Simple CL:  
Intralesional injections Glucantime  
1x/week, 3 weeks



Month 2



Month 5