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# Autochthonous *Leishmania* (*Viannia*) *lainsoni* in Dog, Rio de Janeiro State, Brazil, 2023

## Appendix

**Appendix Table 1.** Hematologic and biochemical profile of a dog with leishmaniasis Barra Mansa-Rio de Janeiro, 2023*

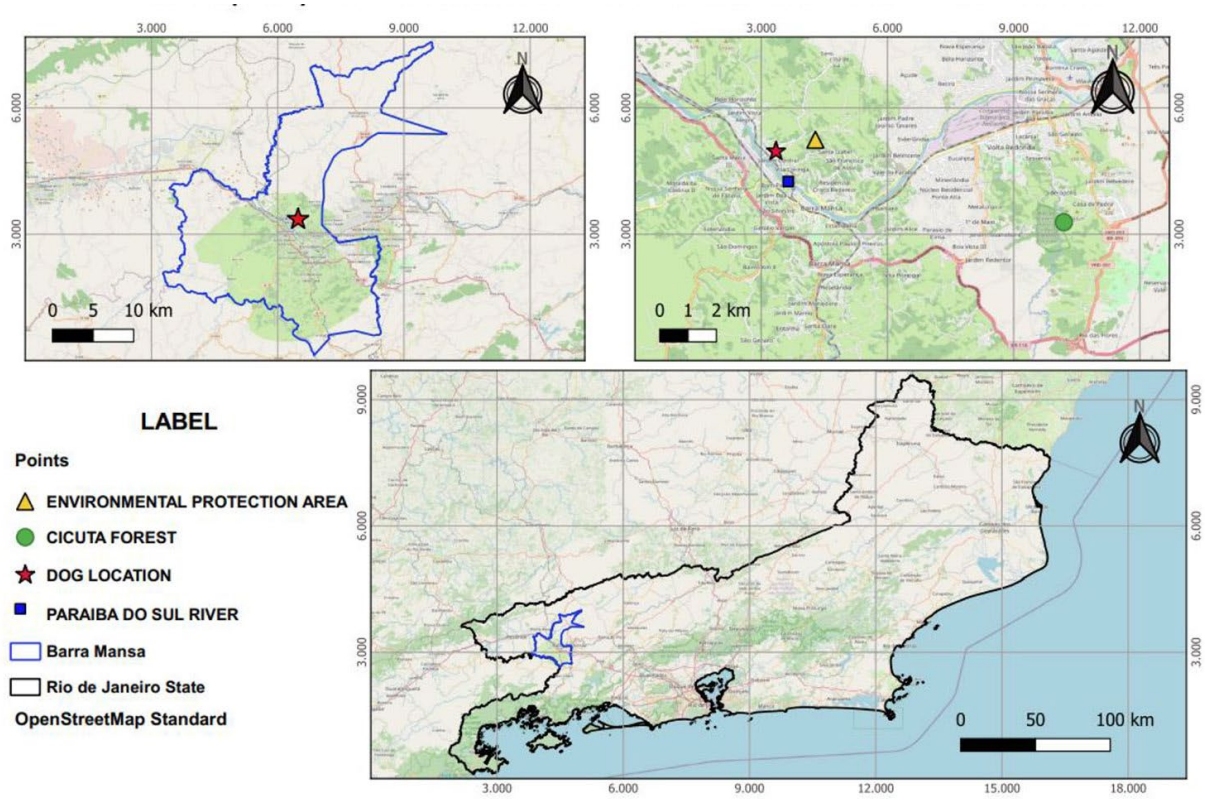
| Profile | Result | Result compared with referent | Referent |
|---|---|---|---|
| Complete blood count | | | |
| Erythrocytes | 4.28 | ↓ | 5.50–8.50 million/µL |
| Hemoglobin | 9.30 | ↓ | 12.00–18.00 g/dL |
| Hematocrit | 27.1 | ↓ | 37.00%–55.00% |
| MCV | 63.3 | | 60,00–77,00 fL |
| HCCM | 34.31 | | 31.00–36.00 g/dL |
| RDW-CV | 14.8 | | 12.00%–15.00% |
| Platelets | 150,000/µL | | 150,000–500,000/µL |
| Leukogram | | | |
| Leukocytes | 12710/µL | | 5,500–16,500/µL |
| Basophils | 0 | | 0–495/µL |
| Eosinophils | 127/µL | | 0–1650/µL |
| Myelocytes | 0 | | 0/µL |
| Metamyelocyte | 0 | | 0/µL |
| Rods | 0 | | 0–495/µL |
| Segmented | 7,753/µL | | 3,300–12,705/µL |
| Lymphocytes | 3,305/µL | | 660–4,950/µL |
| Monocytes | 1,525/µL | | 0–1,650/µL |
| Biochemistry | | | |
| Total plasma protein | 9.00 g/dL | ↑ | 6.0–8.0 g/dL |
| Creatine | 0.9 mg/dL | | 0.50–1.50 mg/dL |
| GGT | 2.0 U/L | | 1.0–10.0 U/L |
| ALT/TGP | 17.44 U/L | | 10.0–102.0 U/L |
| AST/TGO | 39.90 U/L | | 10.0–88.0 U/L |
| Alkaline phosphatase | 15.68 U/L | | 20.0–156.0 U/L |
| Urea | 57.15 mg/dL | | 12.0–60.0 mg/dL |
| Total protein | 7.84 g/dL | | 5.40–7.80 g/dL |
| Albumin | 2.28 g/dL | | 2.50–4.20 g/dL |
| Globulin | 5.56 g/dL | ↑ | 2.30–5.20 g/dL |
| Albumin/globulin ratio | 0.41 | ↓ | 0.60–1.50 |
| Total bilirubin | 0.27 mg/dL | | 0.10–0.60 mg/dL |
| Direct bilirubin | 0.06 mg/dL | | 0.05–0.30 mg/dL |
| Indirect bilirubin | 0.21 mg/dL | | 0.01–0.40 mg/dL |

*Sources: Kaneko JJ et al. Clinical biochemistry of domestic animals, 6th ed. New York: Academic; 2008. Cornell University, Animal Health Diagnostic Center, Ithaca, New York, USA, 2016. ↑, increase; ↓, decrease.

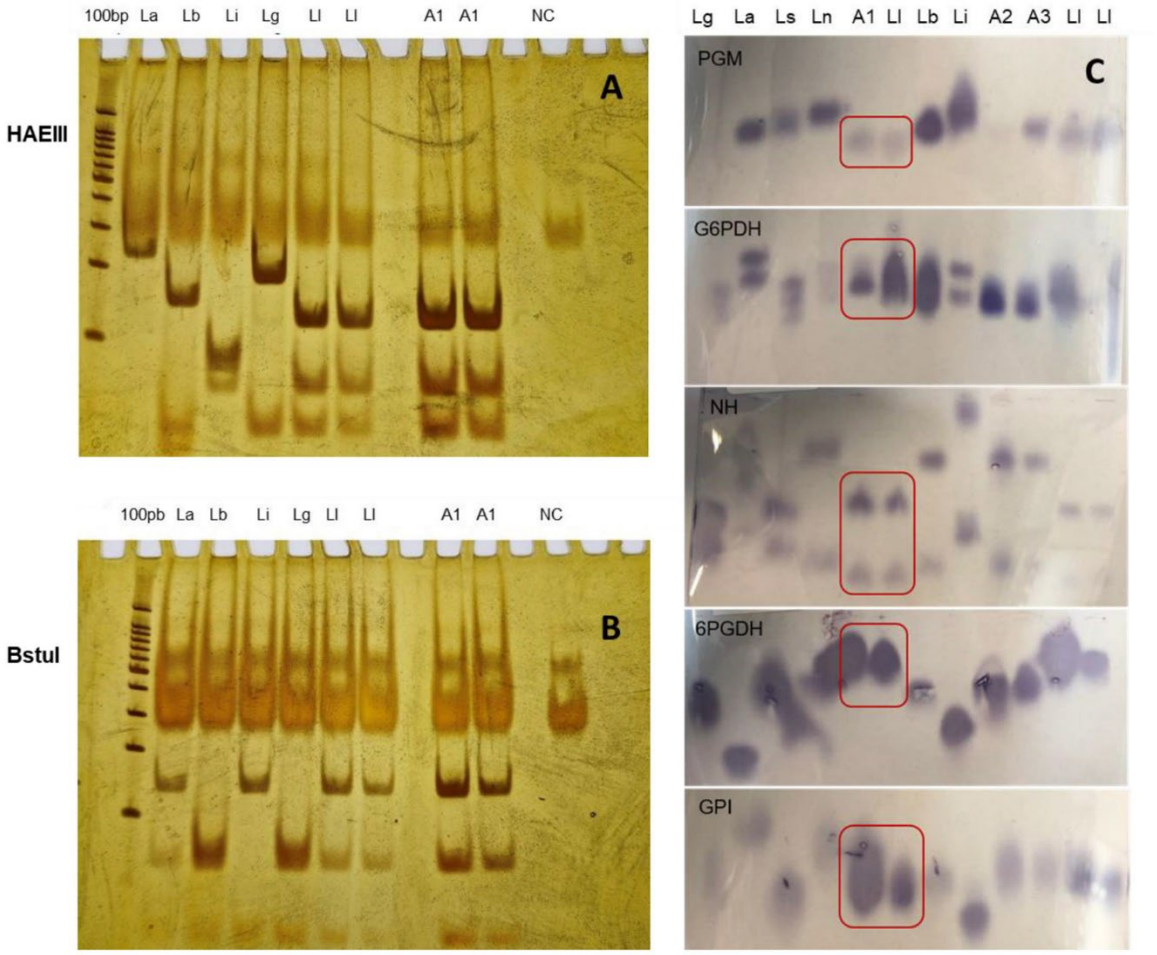
**Appendix Table 2.** Results of the parasitologic and PCR tests performed on a dog with leishmaniasis from Barra Mansa, Rio de Janeiro State, 2023

| Clinical sample | Cytology | Culture | PCR/HSP70–240 bp |
|---|---|---|---|
| Spleen | Positive | Negative | Negative |
| Popliteal lymph node tissue | * | * | * |
| Bone marrow aspirate | Negative | Positive | Positive |
| Popliteal lymph node aspirate | Negative | Negative | Negative |
| Skin | Negative | Negative | Negative |

*Not performed.




**Appendix Figure 1.** Maps of Rio de Janeiro State, the municipality of Barra Mansa, and environmental areas close to the dog's address (highlighted): Candido Silva Environmental Protection Area, Cicuta Forest, and Paraíba do Sul River. This map was created using QGIS 3.28.9 software and cartographic base of Rio de Janeiro State obtained from the Brazilian Institute of Geography and Statistics (https://ibge.gov.br/).




**Appendix Figure 2.** PCR-RFLP 234-bp heat-shock protein (HSP70) showing the (A) *Hae*III and (B) *Bst*UI profiles of the dog infected with *Leishmania lainsoni* compared with profiles of reference strains. C) Isozyme electrophoresis showing the enzyme profiles of the dog for *L. lainsoni* compared with reference strains and human patients. The figure shows the 5 enzymes studied. The order of parasites from left to right is La, Ls, Ln, A1, Ll, Lb, and A2 and A3. A1, dog with *Leishmania lainsoni*; A2 and A3, patients with *Leishmania braziliensis;* bp, 100-bp molecular weight standard; La, *Leishmania amazonensis*/IFLA/BR/1967/PH-8; Lb, *Leishmania braziliensis*/MHOM/BR/75/M2903; Lg, *Leishmania guyanensis*/MHOM/BR/1975/M4147; Li, *Leishmania infantum*/MHOM/BR/74/PP75; Ll, *Leishmania lainsoni*/MHOM/BR/81/M6426; Ln, *Leishmania naiffi*/MDAS/BR/1979/M5533; Ls, *Leishmania shawi*/MCEB/BR/1984/M8408; NC, negative control.