**Supplementary Table S1**- Clinical signs of Dogs Naturally Infected with *Leishmania infantum* in São Luís, Brazil.

| | Animal | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clinical signs** | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Alopecia | X | X | X | X | X | - | X | X | X | X | X | X | - | X | X | X | - | X | X | X | X | X | X | - | - |
| Cachexia | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | X | X | X | X | X | X | X | X | X | X |
| Onychogryphosis/ onychodystrophy | X | X | X | X | - | - | X | X | X | X | X | - | - | X | - | - | - | X | - | X | X | X | X | - | - |
| Skin lesion | X | X | X | X | X | - | X | X | - | - | X | X | - | X | X | - | X | - | X | - | X | X | X | X | X |
| Lymphadenopathy | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Hepatosplenomegaly | - | X | X | X | - | X | X | X | - | - | X | - | - | - | - | - | - | - | X | - | X | - | - | X | X |
| Ocular discharge (mucoid, purulent, or hemorrhagic) | X | X | X | - | - | X | X | X | X | X | - | X | X | X | X | X | - | - | X | - | X | X | X | X | X |
| Conjunctivitis | X | X | X | - | - | - | X | X | X | X | - | X | X | X | X | X | X | - | - | - | - | X | X | X | X |
| Blepharitis | - | - | X | - | - | - | - | - | - | X | - | X | - | - | - | X | X | - | X | - | - | - | X | - | - |
| Uveitis | - | X | - | - | - | - | X | X | - | X | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Corneal opacity | - | - | - | - | - | - | - | X | - | - | - | X | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Supplementary Table S2**- Hematological analysis of Dogs Naturally Infected with *Leishmania infantum* in São Luís, Brazil.

| | LEUKOGRAM | | | | | | ERYTHROGRAM | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Animal** | **Leukocytes (6,000-17,000)** | **Eosinophils (100-1,250)** | **Band Neutrophils (0-540)** | **Segmented Neutrophils (3,000-11,500)** | **Lymphocytes (1,000-4,800)** | **Monocytes (150-1,350)** | **Erythrocytes (5.5-8.5)** | **Hemoglobin (12-18)** | **Hematocrit (37-55)** | **Platelets (200,000-900,000)** |
| **1** | 26,000 ↑ | 0 ↓ | 1,064 ↑ | 23,142 ↑ | 2,394 | 0 ↓ | 3.03 ↓ | 6.06 ↓ | 20 ↓ | 105,000 ↓ |
| **2** | 10,250 | 512.5 | 0 | 6,970 | 1,743 | 1,025 | 4.55 ↓ | 9.09 ↓ | 30 ↓ | 203,000 |
| **3** | 9,100 | 273 | 0 | 8,099 | 546 ↓ | 182 | 2.27 ↓ | 4.55 ↓ | 15 ↓ | 60,000 ↓ |
| **4** | 5,000 ↓ | 250 | 0 | 3,600 | 1,050 | 100 ↓ | 3.03 ↓ | 6.06 ↓ | 20 ↓ | 106,000 ↓ |
| **5** | 3,300 ↓ | 528 | 66 | 2,244 ↓ | 396 ↓ | 66 ↓ | 6.52 | 13.03 | 43 | 513,000 |
| **6** | 5,000 ↓ | 150 | 150 | 4,250 | 400 ↓ | 100 ↓ | 3.94 ↓ | 7.88 ↓ | 26 ↓ | 70,000 ↓ |
| **7** | 19,000 ↑ | 950 | 190 | 14,250 ↑ | 2,470 | 1,140 | 5.91 | 11.82 ↓ | 39 | 307,000 |
| **8** | 5,250 ↓ | 315 | 0 | 4,253 | 578 ↓ | 105 ↓ | 3.48 ↓ | 6.97 ↓ | 23↓ | 176,000 ↓ |
| **9** | 2,300 ↓ | 161 | 23 | 1,794 ↓ | 115 ↓ | 207 | 2.73 ↓ | 5.45 ↓ | 18 ↓ | 285,000 |
| **10** | 13,650 | 0 ↓ | 683 ↑ | 11,193 | 1,092 | 683 | 4.85 ↓ | 9.70 ↓ | 32↓ | 493,000 |
| **11** | 1,500 ↓ | 0 ↓ | 30 | 1,170 ↓ | 285 ↓ | 15 ↓ | 2.27 ↓ | 4.55 ↓ | 15 ↓ | 230,000 |
| **12** | 3,150 ↓ | 220.5 | 0 | 2,300 ↓ | 567 ↓ | 63 ↓ | 4.70 ↓ | 9.39 ↓ | 31 ↓ | 282,000 |
| **13** | 3,300 ↓ | 66 ↓ | 0 | 2,970 ↓ | 264 ↓ | 0 ↓ | 3.33 ↓ | 6.67 ↓ | 22 ↓ | 160,000 ↓ |
| **14** | 20,800 ↑ | 0 ↓ | 0 | 18,096 ↑ | 1,248 | 1,456 ↑ | 5.00 ↓ | 10.00 ↓ | 33 ↓ | 100,000 ↓ |
| **15** | 6,500 | 260 | 0 | 4,550 | 1,495 | 195 | 3.03 ↓ | 6.06 ↓ | 20 ↓ | 260,000 |
| **16** | 7,000 | 210 | 0 | 3,640 | 2,870 | 280 | 4.55 ↓ | 9.09 ↓ | 30 ↓ | 215,000 |
| **17** | 7,350 | 220.5 | 147 | 6,615 | 368 ↓ | 0 ↓ | 3.79 ↓ | 7.58 ↓ | 25 ↓ | 230,000 |
| **18** | 2,500 ↓ | 75 ↓ | 25 | 2,050 ↓ | 350 ↓ | 0 ↓ | 1.52 ↓ | 3.03 ↓ | 10 ↓ | 190,000 ↓ |
| **19** | 4,000 ↓ | 80 ↓ | 0 | 2,400 ↓ | 1,320 | 200 | 2.73 ↓ | 5.45 ↓ | 18 ↓ | 190,000 ↓ |
| **20** | 9,300 | 2,232 ↑ | 0 | 5,022 | 1,860 | 186 | 4.39 ↓ | 8.79 ↓ | 29 ↓ | 250,000 |
| **21** | 16,500 | 0 ↓ | 0 | 14,025 ↑ | 2,475 | 0 ↓ | 4.24 ↓ | 8.48 ↓ | 28 ↓ | 310,000 |
| **22** | 27,000 ↑ | 270 | 3,780 ↑ | 16,200 ↑ | 5,130 ↑ | 1,620 ↑ | 4.24 ↓ | 8.48 ↓ | 28 ↓ | 70,000 ↓ |
| **23** | 9,000 | 90 ↓ | 180 | 6,210 | 2,250 | 270 | 4.09 ↓ | 8.18 ↓ | 27 ↓ | 160,000 ↓ |
| **24** | 5,700 ↓ | 0 ↓ | 228 | 3,192 | 2,166 | 114 ↓ | 5 ↓ | 10 ↓ | 33 ↓ | 150,000 ↓ |
| **25** | 6,800 | 272 | 68 | 5,576 | 748 ↓ | 136 ↓ | 4.24 ↓ | 8.48 ↓ | 28 ↓ | 100,000 ↓ |

**Note:** ↓ Below reference values ↑ Above reference values

**Supplementary Table S3**- Biochemical analysis of Dogs Naturally Infected with *Leishmania infantum* in São Luís, Brazil.

| Animal | AST (RV: 26 a 66 Ul/L) | ALT (RV: 21 a 102 Ul/L) | Creatinine (RV: 0.5 a 1.5 mg/dL) | Total Proteins (RV: 5.4 a 7.7 g/dL) | Albumin (RV: 2.3 a 3.8 g/dL) | Globulin (RV: 2.3 a 5.2 g/dL) | Urea (RV: 10 a 60 g/dL) |
|---|---|---|---|---|---|---|---|
| 1 | 24.10 ↓ | 39.3 | 0.5 | 6 | 1.9 ↓ | 4.1 | 27.7l |
| 2 | 30.2 | 23.2 | 0.5 | 3.9 ↓ | 1.0 ↓ | 2.9 | 63.9 ↑ |
| 3 | 37.7 | 22.1 | 0.5 | 4.5 ↓ | 1.2 ↓ | 3.3 | 65.8 ↑ |
| 4 | 31.9 | 21 | 0.5 | 6.4 | 1.8 ↓ | 4.6 | 30.4 |
| 5 | 34.3 | 38.1 | 0.8 | 7 | 2.7 | 4.3 | 21.5 |
| 6 | 44.3 | 81.1 | 0.5 | 5.7 | 2 ↓ | 3.7 | 27.6 |
| 7 | 39.3 | 29.5 | 0.6 | 5.5 | 2 ↓ | 3.5 | 30.5 |
| 8 | 125 ↑ | 62 | 1.10 ↑ | 10.20 ↑ | 2.5 | 7.80 ↑ | 18.5 |
| 9 | 38 | 56 | 1 | 10.40 ↑ | 2.4 | 8 ↑ | 59.1 |
| 10 | 36 | 40 | 0.8 | 9.80 ↑ | 2.4 | 7.40 ↑ | 37.2 |
| 11 | 35 | 62 | 0.8 | 8.90 ↑ | 2.9 | 6 ↑ | 23.4 |
| 12 | 53 | 54 | 0.5 | 7.2 | 2.20 ↓ | 5 | 47.1 |
| 13 | 46 | 28 | 2.60 ↑ | 6.6 | 1.90 ↓ | 4.7 | 150.20 ↑ |
| 14 | 42 | 30 | 0.20 ↓ | 5.7 | 1.20 ↓ | 4.5 | 31.3 |
| 15 | 43 | 31 | 0.40 ↓ | 7.3 | 2.4 | 5 | 17.4 |
| 16 | 43 | 32 | 0.10 ↓ | 3.90 ↓ | 1.50 ↓ | 3.9 | 15.8 |
| 17 | 41 | 13↓ | 0.20 ↓ | 3.90 ↓ | 1.10 ↓ | 2.7 | 12.9 |
| 18 | 0 ↓ | 141 ↑ | 0.20 ↓ | 11.70 ↑ | 2.6 | 9.10 ↑ | 31.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 19 | 44 | 27 | 0.40 ↓ | 4.70 ↓ | 1.40 ↓ | 3.3 | 23.4 |
| 20 | 33 | 22 | 0.30 ↓ | 7.80 ↑ | 1.90 ↓ | 5.90 ↑ | 19.2 |
| 21 | 56 | 7↓ | 0.5 | 8.60 ↑ | 2.3 | 6.30 ↑ | 24.5 |
| 22 | 39.08 | 13↓ | 0.30 ↓ | 3.90 ↓ | 1.10 ↓ | 2.8 | 112.5 ↑ |
| 23 | 46 | 13↓ | 0.30 ↓ | 9.20 ↑ | 1.80 ↓ | 7.4 ↑ | 20.4 |
| 24 | 52 | 11↓ | 0.7 | 8.50 ↑ | 2.7 | 5.8 ↑ | 26.4 |
| 25 | 62 | 0 ↓ | 1.10 ↑ | 9.90 ↑ | 2.6 | 7.30 ↑ | 25.9 |

**Note**: ↓ Below reference values; ↑ Above reference values, AST: Aspartate Transaminase, ALT: Alanine Transaminase, RV: Reference value.

**Supplementary Table S4** – Distribuition of diagnostic results per diagnostic method of dogs naturally infected with *Leishmania infantum* in São Luís, Brazil

| Animal | Elisa/DPP | Parasite isolation | PCR | Schirmer's Test | Fluorescein | Bone marrow smear | Ocular histopathology |
|---|---|---|---|---|---|---|---|
| **1** | +/+ | + | ** | + | + | ** | + |
| **2** | +/+ | + | ** | - | - | ** | - |
| **3** | +/+ | + | ** | - | - | ** | - |
| **4** | +/+ | + | ** | + | + | ** | + |
| **5** | +/+ | - | - | - | - | ** | - |
| **6** | +/+ | - | - | - | - | ** | - |
| **7** | +/+ | + | ** | - | - | ** | - |
| **8** | +/+ | - | ** | + | - | + | - |
| **9** | +/+ | - | + | + | - | ** | - |
| **10** | +/+ | - | + | + | - | ** | + |
| **11** | +/+ | - | + | + | + | ** | - |
| **12** | +/+ | - | + | - | - | ** | - |
| **13** | +/- | - | - | + | - | + | - |
| **14** | +/+ | - / * | ** | - | - | ** | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **15** | +/+ | + | ** | - | - | ** | - |
| **16** | +/+ | - / * | ** | - | - | ** | - |
| **17** | +/+ | + | ** | + | - | ** | + |
| **18** | +/+ | + | ** | - | + | ** | - |
| **19** | +/+ | + | ** | - | - | ** | - |
| **20** | +/+ | + | ** | - | - | ** | - |
| **21** | +/+ | + | - | - | + | ** | - |
| **22** | +/+ | - / * | ** | - | + | ** | - |
| **23** | +/+ | + | ** | - | - | ** | - |
| **24** | +/+ | + | ** | - | + | ** | - |
| **25** | +/+ | + | ** | - | - | + | - |

+ positive result; - negative result; *visualization of promastigote forms; ** not done