*Supplementary**Table 1.* Basal and anthropometric data for cutaneous leishmaniasis

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Patients | | Controls | | p-values | |
| Women  (n = 11) | Men  (n = 18) | Women  (n = 11) | Men  (n = 18) | bCtrl-Pat.  Women | bCtrl-Pat. Men |
| Age (years)a | 24(15-47) | 22(15-37) | 24(17-50) | 23(16-36) | 0.89 | 0.79 |
| Height (cm) | 151(6.1) | 165(5.6) | 151(4.9) | 166(7.3) | 0.89 | 0.52 |
| Body weight (kg) | 64.0(16.3) | 67.0(13.9) | 62.0(9.3) | 67.0(11.9) | 0.95 | 0.79 |
| BMI (kg/m2) | 28.6(8.0) | 24.5(3.9) | 27.5(4.1) | 24.2(3.3) | 0.85 | 0.65 |

patients and controls. The data are expressed as mean (SD).

aMedian (range); bMann-Whitney test, level of significance p<0.05.

Pat, Patients. Ctrl, Controls.

*Supplementary Table 2.* Comparison of haematological parameters of cutaneous leishmaniasis patients with zinc or placebo supplementation at three times and of their controls, expressed as mean (SD).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameters | aT0 | bT1 | cT2 | Control | dT0 vs Ctrl | dT1 vs Ctrl | dT2 vs Ctrl | dT0 vs  T1 | dT0 vs  T2 | e p values  Zn vs Placebo | | |
| T0 | T1 | T2 |
| **Zinc-supplemented group** | | **n = 14** |  | | | | | | | | | |
| Red cells (1012/L) | 5.4(0.9) | 4.5(0.3) | 5.4(0.7) | 4.7(1.5) | 0.14 | 0.044 | 0.31 | 0.001 | 1.0 | 0.72 | 0.48 | 0.85 |
| Haemoglobin (mmol/L) | 10(1.7) | 8 (1.0) | 10(2.0) | 9(3.0) | 0.52 | 0.003 | 0.60 | 0.003 | 1.0 | 0.68 | 0.65 | 0.75 |
| Hematocrit (h) | 0.45(0.1) | 0.38(0.0) | 0.45(0.1) | 0.44(0.0) | 0.72 | 0.002 | 0.83 | 0.001 | 0.9 | 0.53 | 0.72 | 0.65 |
| White cells(109/L) | 6.8(1.9) | 7.6(2.9) | 7.2(2.5) | 8.8(2.3) | 0.046 | 0.26 | 0.06 | 0.17 | 0.83 | 0.81 | 0.88 | 0.75 |
| Neutrophils (i) | 0.61(0.1) | 0.60(0.1) | 0.54(0.1) | 0.57(0.1) | 0.37 | 0.26 | 0.22 | 0.048 | 0.11 | 0.48 | 0.07 | 0.35 |
| Eosinophils (i) | 0.1(0.1) | 0.1(0.1) | 0.1(0.1) | 0.0(0.0) | 0.33 | 0.054 | 0.11 | 0.25 | 0.10 | 0.53 | 0.10 | 0.78 |
| Lymphocytes (i) | 0.30(0.1) | 0.31(0.1) | 0.36(0.1) | 0.38(0.1) | 0.07 | 0.031 | 0.75 | 0.80 | 0.11 | 0.59 | 0.43 | 0.10 |
| **Placebo group** | | **n = 15** |  | | | | | | | | | |
| Red cells (1012/L) | 5.3(1.2) | 4.4(0.6) | 5.1(0.7) | 4.3(1.8) | 0.010 | 0.19 | 0.01 | 0.01 | 0.51 |  |  |  |
| Haemoglobin (mmol/L) | 10(2.0) | 8(1.0) | 10(2.0) | 8(4.0) | 0.10 | 0.18 | 0.27 | 0.026 | 1.0 |  |  |  |
| Hematocrit (h) | 0.45(1.0) | 0.37(0.0) | 0.45(0.1) | 0.43(0.0) | 0.20 | 0.001 | 0.21 | 0.009 | 0.81 |  |  |  |
| White cells(109/L) | 6.9(1.6) | 6.9(1.6) | 7.4(2.3) | 10.7(2.7) | 0.002 | 0.004 | 0.01 | 0.55 | 0.38 |  |  |  |
| Neutrophils (i) | 0.60(0.1) | 0.66(0.1) | 0.59(0.1) | 0.58(0.1) | 0.40 | 0.037 | 0.72 | 0.10 | 0.61 |  |  |  |
| Eosinophils (i) | 0(0.1) | 0.1 (0.1) | 0.1(0.1) | 0(0.0) | 0.41 | 0.11 | 0.012 | 0.73 | 0.035 |  |  |  |
| Lymphocytes (i) | 0.30(0.1) | 0.28(0.1) | 0.30(0.1) | 0.37(0.1) | 0.20 | 0.013 | 0.017 | 0.11 | 0.31 |  |  |  |

Ctrl, Control. aBefore starting treatment and supplementation, bEnd of antimony treatment, cEnd of supplementation period, dWilcoxon signed ranks test. eMann Whitneytest. h= expressed as fraction of red cells, i= expressed as fraction of white cells.

*Supplementary Table 3.* Hepatic functional markers and other markers of patients with cutaneous leishmaniasis at three times with zinc or placebo supplementation, expressed as mean (SD).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameters | aT0 | bT1 | cT2 | dT0 vs  T1 | dT0 vs  T2 | dT1 vs  T2 | e p values  Zn vs Placebo | | |
| T0 | T1 | T2 |
| **Zinc-supplemented group** | | **n = 14** |  | | | | | | |
| ASAT (μkat/L) | 0.6(0.4) | 1.0(1.0) | 0.6(0.3) | 0.24 | 0.59 | 0.18 | 0.08 | 0.28 | 0.07 |
| ALAT (μkat/L) | 0.6(0.6) | 0.9(0.9) | 0.5 (0.3) | 0.14 | 0.70 | 0.09 | 0.65 | 0.23 | 0.056 |
| Urea (mmol/L) | 9(3) | 11 (10) | 8 (3) | 0.80 | 0.79 | 0.42 | 0.94 | 0.32 | 0.84 |
| Glucose (mmol/L) | 5 (1) | 5 (1) | 5 (1) | 0.52 | 0.42 | 1.0 | 0.59 | 0.12 | 0.62 |
| **Placebo group** | | **n = 15** |  | | | | | | |
| ASAT (μkat/L) | 0.5(0.3) | 0.6 (0.2) | 0.4(0.2) | 0.97 | 0.06 | 0.013 |  |  |  |
| ALAT (μkat/L) | 0.5(0.4) | 0.5(0.3) | 0.3(0.2) | 0.93 | 0.38 | 0.16 |  |  |  |
| Urea (mmol/L) | 9(4) | 8(3) | 9(3) | 0.24 | 0.43 | 0.32 |  |  |  |
| Glucose (mmol/L) | 4(1) | 5(1) | 5(1) | 0.41 | 0.49 | 0.92 |  |  |  |

ASAT, aspartate aminotransferase; ALAT, alanine aminotransferase; aBefore starting treatment and supplementation, bEnd of antimony treatment, cEnd of supplementation period. dWilcoxon signed ranks test level of significance p<0.05. eMann Whitney test level of significance p<0.05.

*Supplementary Table 4.* Plasma concentration of inflammatory markers in cutaneous leishmaniasis patients before and after zinc supplementation and in controls. The data are expressed as mean (SD).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Concentration in plasma | T0 | T2 | Control | p-values | | | |
| a T0  vs  T2 | aT0  vs  Ctrl | T2  vs  Ctrl | b T2-T0  Zinc vs Placebo |
| **Zinc group (n=14)** | | | | | | | |
| Albumin  (g/L) | 40.2 (3.3) | 39.9(2.6) | 42.6(3.7) | 0.83 | 0.056 | 0.022 | 0.83 |
| CRP  (mg/L) | 3.2(3.2) | 6.5(10.6) | 1.5(1.5) | 0.64 | 0.028 | 0.07 | 0.49 |
| Haptoglobin  (g/L) | 1.6(0.4) | 1.4(0.4) | 1.3(0.4) | 0.022 | 0.07 | 0.60 | 0.89 |
| Orosomucoid  (g/L) | 0.7(0.2) | 0.6(0.3) | 0.6(0.2) | 0.30 | 0.64 | 0.55 | 0.78 |
| **Placebo group (n=15)** | | | | | | | |
| Albumin  (g/L) | 40.2 (2.6) | 40.6(3.4) | 42.6(2.8) | 0.69 | 0.012 | 0.08 |  |
| CRP  (mg/L) | 2.8(4.3) | 1.8(1.4) | 6.2(4.7) | 0.36 | 0.65 | 0.55 |  |
| Haptoglobin  (g/L) | 1.7(0.5) | 1.4(0.4) | 1.5(0.4) | 0.025 | 0.14 | 0.79 |  |
| Orosomucoid  (g/L) | 0.7(0.2) | 0.6(0.1) | 0.7(0.2) | 0.039 | 0.89 | 0.026 |  |

Ctrl, Control. CRP, C-reactive protein. aWilcoxon’s signed-rank test, level of significance p<0.05; bMann-Whitney test, level of significance p<0.05.

*Supplementary Table 5.* Plasma concentration of clinical chemistry biomarkers in cutaneous leishmaniasis patients before and after zinc supplementation and in controls. Data are expressed as mean (SD).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Concentration in plasma | Time 0 | Time 2 | Control | p–value | | | |
| aT2  vs  T0 | aT0  vs  Ctrl | aT2  vs.  Ctrl | bT2 – T0  Zinc  vs  Placebo |
| **Zinc group (n=14)** | | | | | | | |
| ALP  (*μ*kat/L) | 1.7(0.9) | 1.9(0.9) | 1.5(0.8) | 0.20 | 0.80 | 0.18 | 0.89 |
| GT  (*μ*kat/L) | 0.5(0.4) | 0.5(0.5) | 0.4(0.2) | 0.56 | 0.78 | 0.95 | 0.71 |
| Bilirubin (*μ*mol/L) | 8.1(5.9) | 8.2(5.6) | 5.5(3.0) | 0.31 | 0.22 | 0.13 | 0.97 |
| Creatinine (*μ*mol/L) | 61(12) | 57(9) | 64(14) | 0.019 | 0.64 | 0.22 | 0.057 |
| Urate (*μ*mol/L) | 237(47) | 216(44) | 212(58) | 0.055 | 0.11 | 0.71 | 0.54 |
| **Placebo group (n=15)** | | | | | | | |
| ALP  (*μ*kat/L) | 1.4(0.4) | 1.6(0.4) | 1.6(0.5) | 0.015 | 0.11 | 0.97 |  |
| GT  (*μ*kat/L) | 0.4(0.2) | 0.3(0.2) | 0.6(0.6) | 0.28 | 0.24 | 0.050 |  |
| Bilirubin (*μ*mol/L) | 9.3(7.5) | 9.6(4.2) | 7.3(2.7) | 0.57 | 0.53 | 0.057 |  |
| Creatinine (*μ*mol/L) | 59(14) | 59(16) | 65(15) | 0.86 | 0.053 | 0.050 |  |
| Urate (*μ*mol/L) | 240(60) | 231(75) | 250(81) | 0.23 | 0.53 | 0.28 |  |

Ctrl, Control. ALP, alkaline phosphatase; GT, gamma-glutamyltransferase. aWilcoxon’s signed-rank test, level of significance p<0.05; bMann-Whitney test, level of significance p<0.05.