|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Non-infected** | **Acute (ART-)** | **Chronic (ART-)** | **Chronic (ART+)** | **Elite controllers** |
| **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** | **% within total CD8+** | **% within FoxP3+ CD8+** |
| **Naïve (CD45RA+CD28+)****median (IQR)** | 23.65a,b,c,d,k(17.38-28.40) | 8.13k(6.41-13.7) | 10.03a,l(6.25-19.65) | 6.56l(3.77-10.38) | 11.80b,m(9.13-21.35) | 7.95g,m(2.66-15.48) | 13.40c(9.55-19.78) | 13.50(3.89-27.95) | 14.85d(7.24-24.03) | 13.35g(7.12-19.08) |
| **CM (CD45RA-CD28+)****median (IQR)** | 22.50b,d(594-36.43) | 23.55(16.75-36.30) | 18.55l(13.75-27.60) | 19.35l(17.20-31.63) | 13.95b,h(11.38-16.98) | 17.15h(10.03-21.68) | 28.85h,j(15-48-55) | 33h,j(20.73-52.85) | 17.55d,j,o(8.32-21.10) | 18.40j,o(10.83-31.50) |
| **EM (CD45RA-CD28-)****median (IQR)** | 11.15a,b,d,k(5.38-16.28) | 22.45a,k(13.43-27.43) | 33.65a,f,g,l(22-42.63) | 35.45a,f,g,l(27.10-47.38) | 29.95b,h,i(24.93-36.18) | 32.60(18.95-45.43) | 14.05f,h(9.37-16.55) | 18.60f(8.64-33.75) | 19.30d,g,i(7.93-32.03) | 18.80g(9.31-30.90) |
| **TD (CD45RA+CD28-)****median (IQR)** | 40.50c(26-52.35) | 40.70(25.05-53.73) | 34.80g(23.33-44.78) | 30.45g(21.25-41.13) | 39.70(33.90-44.60) | 38.05(29.25-48.38) | 26.40j(13.80-52.35) | 19.60c,j(11.33-44.45) | 42.10g,j(38.85-58.35) | 40g,j(31.33-56.63) |
| **CD38+HLA-DR+****median (IQR)** | 3.32a,b,c,d,k(1.44-4.98) | 19.35a,b,k(13.80-26.23) | 26.15a,f ,g,l(18.20-34.40) | 39.45a,f,g,l(23.95-58.48) | 32.20b,h,I,m(26.25-38.65) | 38.95b,h,I,m(30.53-50.13) | 10.17c,f,h,n(7.97-15.85) | 18.55f ,h,n(15.93-30.68) | 11.75d,g,I,o(4.68-21.58) | 24.90g,I,o(18.25-34.70) |
| **CD57+CD28-****median (IQR)** | 15.45a,b,d(6.72-26.75) | 13.40a,b,d(8.32-29.65) | 40.20a,f,l(23.75-47.58) | 34.45a,f,l(19.43-40.73) | 34.25b(25.28-48.88) | 27.85b,h(22.65-46.60) | 23.15f,n(10.40-31.05) | 18.40f,h,j,n(12.11-25.40) | 32.85d(20.85-45.30) | 31.55d,j(23.18-43.48) |
| **PD-1+****median (IQR)** | 7.97a,b,c,d,k(5.44-19.68) | 28.50a,b,k(23.23-31.60) | 30.40a,f,g,l(20.55-44.23) | 40.70a,f,g,l(34.08-52.30) | 34.35b,h,m(27.15-47.53) | 44b,h,I,m(35.18-44.05) | 19.65c,f,h,n(14.53-24.10) | 21.30f,h,n(17.88-39.85) | 16.90d,g,o(11.32-34.88) | 31.45g,I,o(17-40.33) |
| **CTLA-4+****median (IQR)** | 1.19a,c,k(0.82-1.56) | 4.19c,k(4.88-9.73) | 1.86a,l(1.27-2.66) | 6.92f,l(3.96-12.73) | 1.82m(1.15-2.98) | 5.62h,m(4.36-6.49) | 1.97c,n(1.32-5.04) | 14.65c,f,h,n(7.55-52.25) | 1.61o(0.77-5.96) | 6.83o(3.94-20.15) |
| **CD39+****median (IQR)** | 5.26a,c,d,k(2.29-7.69) | 24.85k(14.80-34.88) | 16.28a,e,l(9.13-23.58) | 23.25l(17.25-31.03) | 7.84e,h,I,m(3.73-13.35) | 21.35m(15.25-29.90) | 17.92c,h,n(9.99-21.74) | 24.77n(17.88-30.58) | 14.60d,I,o(12.05-20.63) | 24.73o(20.28-27.90) |
| **LAP(TGF-β1)+****median (IQR)** | 6.82k(2.81-19) | 87.50a,b,k(59.05-94.98) | 5.27f,g,l(3.47-8.55) | 63.30a,e,f,g,l(50.35-79.80) | 6.04h,m(3.31-7.81) | 49.97b,e,h,I,m(31.18-56.50) | 12.25f,h,n(9.87-23.48) | 81.40f,h,n(63.17-95.33) | 11.90g,o(5.80-19.88) | 81.20g,I,o(66.05-95.35) |
| **CD39+LAP(TGF-β1)+****median (IQR)** | 0.54c,d,k(0.17-1.29) | 16.90b,k(11.80-26.75) | 1.075f,l(0.49-1.52) | 14.86l(9.16-21.08) | 0.76h,m(0.24-1.37) | 11.96b,h,I,m(6.78-13.60) | 2.13c,f,h,n(1.77-2.56) | 16.93h,n(14.15-20.92) | 1.97d,o(0.73-3.60) | 18.80i,o(13.13-26) |
| **CCR4+****median (IQR)** | 20.60a,k(10.95-33.33) | 68.80a,b,k(41.70-77.80) | 10.30a,f,g,l(7.36-22) | 44.60a,l(21.90-62.63) | 19.05m(6.96-26.93) | 29.55b,h,I,m(18.58-44.73) | 23.65f,n(21.45-33.3) | 62.60h,n(45.73-69.70) | 19.20g,o(11.95-30.48) | 53.60i,o(37.30-70) |
| **CCR5+****median (IQR)** | 8.51b,k(4.61-14.78) | 22.60a,k(14.05-33.63) | 5.09e,l(3.24-8.81) | 11.85a,e,l(10.45-15.18) | 13.80b,e,h,I,m(10.53-18.28) | 21.70e,m(17.05-28.88) | 5.30h,n(3.58-8.20) | 15.70n(11.42-35.63) | 7.63i,o(4.16-9.57) | 14.90o(11.78-31.03) |
| **CCR6+****median (IQR)** | 7.28a,c,d,k(5.25-8.44) | 10.50a,b,c,k,d(8.02-13.48) | 5.11a,l(3.99-6.68) | 7.25a,l(5.49-8.40) | 5.36m(3.94-7.66) | 7.70b,m(6.90-9.75) | 4.69c,n(4.43-5.63) | 6.84c,n(5.71-7.58) | 5.75d,o(4.01-7.58) | 7.85d,o(7.23-9.79) |
| **CXCR3+****median (IQR)** | 16.85d,k(10.90-22.60) | 47.05a,k(35.95-52.42) | 17.75g,l(9.90-26.63) | 54.90a,l(39.33-68.35) | 11.35i,m(9.99-13.03) | 40.50m(34.90-53.33) | 14.10j,n(34.90-53.33) | 52.75n(43.78-62.18) | 8.02d,g,I,j,o(5.58-12.30) | 45.25o(36.93-59.05) |
| **CCR9+****median (IQR)** | 0.89a,b,c,d,k(0.52-1.65) | 6.43k(3.92-8.65) | 2.67a,l(1.87-3.75) | 8.18l(6.60-11.73) | 3.15b,m(2.42-3.63) | 8.89m(6.49-11.73) | 3.12c,n(1.87-3.25) | 6.17n(4.16-10.01) | 1.90d,o(1.09-3.38) | 7.31o(5.82-8.57) |
| **Integrin β7+****median (IQR)** | 6.14a,b,c,d,k(4.23-7.34) | 38.60a,k(33.75-52.25) | 30.70a,l(21.88-40.38) | 47.99a,e,f,g,l(42.63-57.18) | 29.40b,m(22.10-35.53) | 38.71e,m(30-47.35) | 30.50c,n(24-32.21) | 39.20f,n(36.13-42.98) | 26.95d,o(17.18-42.40) | 35.85g,o(26.18-46.78) |
| **CCR9+CD39+****median (IQR)** | 0.12a,b,c,d,k(0.05-0.22) | 2.95k(1.50-6.40) | 0.54a,l(0.26-0.87) | 3.23l(2.34-5.95) | 0.48b,m(0.13-0.90) | 4.34m(3.60-5.25) | 0.50c,n(0.24-1.01) | 4n(3.14-5.81) | 0.18d,o(0.13-0.98) | 3.01o(1.97-3.88) |
| **CCR9+LAP(TGF-β1)+****median (IQR)** | 0.28a,b,c,k(0.09-0.54) | 4.29k(3.26-8.09) | 0.61a,l(0.31-0.77) | 6.56l(4.73-8.50) | 0.57b,m(0.27-1.19) | 6.02m(3.14-10.83) | 0.93c,n(0.49-1.14) | 3.55n(2.52-5.68) | 0.18o(0.05-0.47) | 5.09o(2.20-5.76) |
| **Integrin β7+CD39+****median (IQR)** | 0.39a,b,c,d,k(0.08-0.71) | 11.15k(7.48-18.50) | 4.42a,l(2.56-7.01) | 14.15l(8.78-18.95) | 2.27b,h,m(1.45-4.76) | 9.52m(5.86-16.65) | 6.04c,h,n(4.14-7.33) | 10.74n(9.18-13.15) | 5.12d,o(1.42-9.94) | 10.25o(8.48-14.65) |
| **Integrin β7+LAP(TGF-β1)+ median (IQR)** | 0.82a,c,d,k(0.43-2.13) | 32.90b,k(26.85-38.93) | 2.48a,f,l(1.15-4.23) | 31.54e,l(22.50-39.43) | 2.01h,m(1.28-2.72) | 23.66b,e,h,m(15.56-26.30) | 5.02c,f,h,n(4.04-9.35) | 32.31h,n(26.26-36.20) | 4.45d,o(1.21-8.03) | 26.99o(20.15-36.53) |

**Supplementary Table 2.** Comparison of the expression of analysed sub-population among total CD8 T-cells *versus* FoxP3+ CD8 T-cells in cross-sectional study groups.

Results are shown as median and interquartile range (IQR).

Significant differences (p < 0.05) following Mann–Whitney for the comparison between total CD8 T-cells or FoxP3+ CD8 T-cells within different study groups are mentioned as follow: **a**: Non-infected vs Acute, **b**: Non-infected vs Chronic (ART-), **c**: Non infected vs Chronic (ART+), **d**: Non-infected vs EC, **e**: Acute vs Chronic (ART-), **f**: Acute vs Chronic (ART+), **g**: Acute vs EC, **h**: Chronic (ART-) vs Chronic (ART+), **i**: Chronic (ART-) vs EC, **j**: Chronic (ART+) vs EC.

Significant differences (p < 0.05) following Wilcoxon signed-rank test for the comparation between total CD8 T-cells *versus* FoxP3+ CD8 T-cells among the same study group are mentioned as follow: **k**: Non infected (within total CD8+ vs within FoxP3+ CD8+), **l**: Acute (ART-) (within total CD8+ vs within FoxP3+ CD8+), **m**: Chronic (ART-) (within total CD8+ vs within FoxP3+ CD8+), **n**: Chronic (ART+) (within total CD8+ vs within FoxP3+ CD8+), **o**: EC (within total CD8+ vs within FoxP3+ CD8+)