**Supplementary data Table S1 in Text S1:** Complete data of all clinical and laboratory characteristics. Mann and Whitney test followed by Bonferroni-Dunn’s Multiple Comparison test was applied (P values < 0.05 were considered statistically significant).

|  |  |  |  |
| --- | --- | --- | --- |
| **CLINICAL CHARACTERISTICS**  | **FRANCE (n = 19)** | **COLOMBIA (n = 23)** |  |
|  |  | Mean /n (%)\* | Median | (Range) | Mean /n( %)\* | Median | (Range) | **P-value** |
| **AGE**  | **Age at consultation** | 45.22 | 44.5 | (16-77) | 38.3 | 37 | (20-86) | 0.23 |
|  | **Age at first episode** | 40 | 42 | (1-70) | 33.96 | 29 | (16-85) | 0.46 |
|  | **Age at last acute episode** | 47.29 | 46 | (23-76) | 39.45 | 37.5 | (20-86) | 0.34 |
|  |  |  |  |  |  |  |  |  |
|  **GENDER**  | **Male**  |  12 (63.16%) | N.A. | N.A. | 14 (60.87%) | N.A. | N.A. | 0.95 |
|  | **Female** |  7 (36.84%) | N.A. | N.A. | 9 (39.13%) | N.A. | N.A. | 0.21 |
|  |  |  |  |  |  |  |  |  |
| **OCULAR INVOLVEMENT**  | **Right eye** |  8 (42.10%) | N.A. | N.A. | 14 (60.87%) | N.A. | N.A. | 0.23 |
|  | **Left eye** |  11 (57.89%) | N.A. | N.A. | 10 (43.47%) | N.A. | N.A. | 0.36 |
|  | **Bilateral** |  1 (5.56%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | **0.04** |
|  |  |  |  |  |  |  |  |  |
| **EVOLUTION TIME**  | **(days)** | 15 | 6 | (1-150) | 46 | 15 | (4-240) | **0.02** |
|  |  |  |  |  |  |  |  |  |
| **LOCALIZATION OF INFLAMMATION**  |  **Panuveitis** | 10 (52.63%) | 1 | (0-1) | 11 (47.82%) | N.A. | N.A. | 0.76 |
|  |  |  |  |  |  |  |  |  |
| **NUMBER OF RETINOCHOROIDAL LESIONS** |  **Active lesions** | 1 | 1 |  (1-1) | 1.22 | 1 | (0-4) | 0.3 |
| **Inactive lesions** | 1.05 | 1 | (0-5) | 1.48 | 1 | (0-4) | 0.36 |
| **Total (active and inactive)**  | 1.63 | 2 | (0-6) | 2.35 | 2 | (0-6) | 0.16 |
|  |  |  |  |  |  |  |  |  |
| **SIZE OF LESIONS** | **Size of active lesions (dd)** | 1.26 | 1 | (0.5-5) | 1.93 | 2 | (0-5) | **0.04** |
|  | **Size of Inactive lesions (dd)** | 1.27 | 1 | (0.5-3) | 1.07 | 1 | (0-5) | 0.21 |
|  |  |  |  |  |  |  |  |  |
| **LESION LOCALIZATION** |  **Macular**  | 2 (10.53%) | N.A. | N.A. | 13 (56.52%) | N.A. | N.A. | **0.001** |
|  | **Posterior non-macular pole** | 12 (63.16%) | N.A. | N.A. | 12 (52.17%) | N.A. | N.A. | 0.49 |
|  |  |  |  |  |  |  |  |  |
| **INFLAMMATION LEVEL** |  **AH inflammation (+)** | 1.5 | 1 | (0-3) | 1.83 | 2 | (0.5-4) | 0.34 |
|  | **Vitreous inflammation (+)** | 0.95 | 2 | (0-1) | 2.41 | 2 | (0-4) | **0.00001** |
|  |  |  |  |  |  |  |  |
| **NUMBER OF RECURRENCES** | 1.32 | 1 | (0-7) |  | 1.83 | 1 | (0-9) |
|  |  |  |  |  |  |  |  |  |
| **SCAR NUMBER** | 1.11 | 1 | (0-5) |  | 1.65 | 1 | (0-4) |
|  |  |  |  |  |  |  |  |  |
| **BCVA** |  **Legal blindness in one eye(BCVA <20/200 )** | 4 (23.53%) | N.A. | N.A. | 9 (39.13%) | N.A. | N.A. | 0.31 |
|  | **Legal blindness in one both eyes (BCVA <20/200 )** | 0 (0%) | N.A. | N.A. | 1 (4.34%) | N.A. | N.A. | 0.38 |
|  | **OD BCVA 20/20-20/40** | 12 (63.16%) | N.A. | N.A. | 12 (52.17%) | N.A. | N.A. | 0.48 |
|  | **OD BCVA 20/40-20/200** | 4 (21.05%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | 0.5 |
|  | **OD BCVA <20/200** | 3 (16.67%) | N.A. | N.A. | 5 (21.73%) | N.A. | N.A. | 0.69 |
|  | **OS BCVA 20/20-20/40** | 16 (88.89%) | N.A. | N.A. | 10 (43.47%) | N.A. | N.A. | **0** |
|  | **OS BCVA 20/40-20/200** | 1 (5.56%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | **0.04** |
|  | **OS BCVA <20/200** | 1 (5.6%) | N.A. | N.A. | 5 (21.74%) | N.A. | N.A. | 0.15 |
|  |  |  |  |  |  |  |  |  |
| **COMPLICATIONS**  | **Strabismus** | 0 (0%) | N.A. | N.A. | 3 (13.04%) | N.A. | N.A. | 0.11 |
|  | **Cataracts** | 3 (15.78%) | N.A. | N.A. | 3 (13.04%) | N.A. | N.A. | 0.81 |
|  | **Synechiae**  | 2 (5.26%) | N.A. | N.A. | 11 (47.8%) | N.A. | N.A. | **0.04** |
|  | **Papilitis** | 4 (21.05%) | N.A. | N.A. | 6 (26.09%) | N.A. | N.A. | 0.71 |
|  | **Vasculitis** | 1 (5.26%) | N.A. | N.A. | 7(30.43%) | N.A. | N.A. | **0.04** |
|  | **High IOP** | 2 (10.52%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | 0.12 |
|  | **CME** | 1 (5.26%) | N.A. | N.A. | 9 (39.13%) | N.A. | N.A. | 0.35 |
|  |  |  |  |  |  |  |  |  |
| **ACQUISITION OF INFECTION**  |  **Acquired infection** | 5 (26.31%) | N.A. | N.A. | 3 (13.04%) | N.A. | N.A. | 0.29 |
| **Congenital** | 1 (5.26%) | N.A. | N.A. | 1 (4.34%) | N.A. | N.A. | 0.89 |
|  | **Undetermined** | 13 (68.42%) | N.A. | N.A. | 19 (86.96%) | N.A. | N.A. | 0.15 |
|  |  |  |  |  |  |  |  |  |
| **TREATMENT** |  **Previous treatment** | 4 (33.33%) | N.A. | N.A. | 12 (52.17%) | N.A. | N.A. | 0.3 |
|  | **Antibiotics or antiparasitics only** | 0 (0%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | N.A. |
|  | **Antibiotics or antiparasitics + Steroids** | 4 (66.66%) | N.A. | N.A. | 7 (30.43%) | N.A. | N.A. | 0.11 |
|  | **SC steroids**  | 2 (33.33%) | N.A. | N.A. |  5 (21.73%) | N.A. | N.A. | 0.57 |
|  | **PO steroids** | 3 (50%) | N.A. | N.A. | 9 (41.38%) | N.A. | N.A. | 0.64 |
|  | **Number of patients with additional complications** | 1.06 | 0 | (0-10) | 2.05 | 0 | (0-8) | 0.31 |
|  |  |  |  |  |  |  |  |  |
| **LABORATORY TESTS** |  **Quantitative IgG (UI/ml)** | 158.03 | 98 | (17.4-1178) | 170.12 | 180.9 | (36.4-301.4) | 0.83 |
|  | **Qualitative IgM**  | 19 (15.78%) | N.A. | N.A. | 23 (86.95%) | N.A. | N.A. | 0.49 |
|  | **PCR** | 13 (39.39%) | N.A. | N.A. | 11 (47.8%) | N.A. | N.A. | 0.53 |
|   | **IB** | 22(68.75%) | N.A. | N.A. | 19 (82.6%) | N.A. | N.A. | 0.25 |

\* Percentages take into account only the patients with available information

AH: aqueous humor; BCVA: best corrected visual acuity; CME: cystoid macular edema; IB: immunoblotting; IgG: immunoglobulin G; IgM: immunoglobulin M; OD: *oculus dexter* (right eye); OS: *oculus sinister* (left eye); PCR: polymerase chain reaction

N.A.: Not applicable (for categorical variables)

**Supplementary data Table S2 in Text S1:** Intraocular cytokines, chemokines and growth factors in aqueous humor of Cataract Control patients from France (CT-CO) and Colombia (CT-FR) and from Ocular toxoplasmosis patients from France (OT-FR) and Colombia (OT-CO). Levels of these immune mediators are expressed as mean and standard deviation, median and range (min-max) in pg/mL. Statistical differences between CT and OT and between OT from France versus OT from Colombia were calculated using a Kruskal-Wallis test followed by Dunn’s Multiple Comparison test. Significant differences between populations (P<0.05) were highlighted by tinting the spaces. Description of major general functions of cytokines and chemokines are issued from “Commins SP et al., J Allerg Clin Immunol, 2010 ; Banchereau J. et al., Nature Immunology, 2012”.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CT-FR**Mean±sdMedianMin-max | **CT-CO**Mean±sdMedianMin-max | **OT-FR**Mean±sdMedianMin-max | **OT-CO**Mean±sdMedianMin-max | **CT-FR versus****OT-FR** | **CT-CO versus****OT-CO** | **OT-FR versus****OT-CO** | **Major general functions\*** |
| **IFN-** | 12.95±1.5611.9810.11-14.90 | 15.52±18.3210.801.3-62.80 | 217±125183102-318.3 | 21.95±21.4813.301.8-57.30 | \*\* | ns | \*\*\* | Th1, inhibits intracellular pathogen, such *Toxoplasma gondii*, replication  |
| **IL-12 (p70)**  | 0.70±0.940.50-3 | 24.07±16.9826.650-53.90 | 42.36±45.53257.6-142.5 | 63.62±14.1816.150-38.28 | \*\* | ns | ns | Th1 cytokine, differentiates naive T cells into Th1 cells |
| **TNF-** | 17.34±4.4616.4511.76-25.08 | 8.02±6.481.3-19.30 | 20.27±6.1922.298.5-27.40 | 39.85±23.6539.5510.30-69.30 | ns | \*\*\* | ns | Th1/Th2 cytokine, inflammation, induce fever, apoptosis, through IL1 and IL6 production.  |
| **IL-2** | 1.41±0.921.220.07-2.57 | 0.32±0.6900-2.1 | 11.44±3.4711.578-17.50 | 1.86±3.4400-9.6 | ns | ns | \*\*\* | TH1/Th2 cytokine, growth, proliferation, and differentiation of T cells, maturation of T-regs |
| **GM-CSF** | 0.75±1.2000-3.5 | 6.51±18.9800-57.10 | 35.38±35.57101-89 | 3.81±12.0500-38.10 | \* | ns | \*\*\* | Th-1/TH2 cytokine, a white blood cell growth factor |
| **IL-4** | 1.42±1.920.70-5.7 | 2.3±3.50.50-11 | 23.97±15.191710.10-58-80 | 17.60±12.84173.5-36.50 | \*\*\* | \* | ns | TH2/Th9 cytokine, stimulates activated B-cell and T-cell proliferation, differentiates B cells into plasma Cells producing IgE; decreases the production of Th1 cells, macrophages, IFN- , and IL-12. |
| **IL-5** | 0.04±0.0800-0.2 | 2.80±3.002.250-8 | 9.12±7.755.21.9-24.90 | 25.10±26.9510.500.5-66.50 | \*\*\* | ns | ns | Th2 cytokine stimulates B cell growth and increases immunoglobulin secretion, mediates eosinophil activation |
| **IL-13** | 10.02±11.315.422.07-37-70 | 10.67±10.918.500-29 | 17.53±14.66148.3-58 | 133.1±163.766.756.5-543.5 | ns | \*\* | ns | Th2, anti-inflammatory cytokines and induces matrix metalloproteinases (MMPs) |
| **IL-10** | 18.45± 8.9816.505-32 | 43.36± 28.6842.9015.4-106-4 | 621.8 ±359.9537.8198-1377 | 117.5± 169.734.407.9-550.4 | \*\*\* | ns | \* | Treg/Th3, anti-inflammatory cytokine, down-regulates Th1 and Th17 cells  |
| **IL-9** | 28.58±19.2425.905.8-62 | 9.4±11.240.450-20.4 | 25.34±5.852718-33.5 | 7±8.062.70-16.15 | ns | ns | \*\* | Th9 /Th2 cytokine, stimulates cell proliferation and prevents apoptosis |
| **IL-17** | 7 ±4.77.41.11-15.48 | 1.87± 2.051.40-5.4 | 82.59±20.1786.2539-107.4 | 4.21±3.882.50.4-11.90 | \* | ns | \*\*\* | Th17 proinflammatory cytokine  |
| **IL-6** | 36.47±24.5137.198.8-83.66 | 38.71±42.3424.60.3-135.8 | 412.1±266367.1154-950 | 3163±3.1052418158-8330 | \* | \*\*\* | ns | Inflammatory and anti-inflammatory cytokine, activates B lymphocyte, responsible of pyrexia, production of acute phase protein and apoptosis |
| **IL-15** | 2.46± 3.0200-8.8 | 12.18±19.5800-59.3 | 69.40±50.5854.520-112 | 20.58±22.4615.30-56.3 | \*\*\* | ns | ns | NK cell maturation, facilitate production of immunoglobulins and maintains survival of CD8+ memory T cells |
| **IL-7**  | 0.42±0.540.20-1.7 | 2.67±1.752.650-5.9 | 13.72±4.1113.39.4-24.5 | 8.71±8.986.150-23.9 | \*\*\* | ns | ns | B lymphocyte maturation  |
| **IL-1** | 8.48±4.8800-3.5 | 13.11± 16.6700-57.1 | 22.65± 23.46101-89 | 26.30± 32.6000-38.1 | \* | ns | \*\*\* | Inflammation, involved in cell proliferation, differentiation, and apoptosis |
| **IL-1RA** | 14.02±24.776.82.5-84.3 | 4.78±5.974.30-62.3 | 73.39±41.3170.535-151 | 52.52±56.798.31.3-170.3 | \*\* | ns | ns | Anti-inflammatory cytokine, inhibits the activities of IL-1s  |
| **IL-8 /CXCL8** | 38.02±33.9731.050.3-114 | 88.54±188.630.80-588.8 | 1311±7201179362.8-2385 | 1083±1383562.842.3-4539 | \*\*\* | \* | ns | Inflammation , recruits polymorphonuclear leukocytes |
| **MIP-1CCL3** | 10.10±6.717.92.3-21.5 | 25.38±47.416.10-145.1 | 34.8±34.5330.58-111.8 | 193.2±225.254.66.1-520.6 | ns | ns | ns | Inflammation, recruits and activates polymorphonuclear leukocytes |
| **MIP-/CCL4** | 276.1±261.4215.575.5-943.5 | 145.6±123.398.600-875.6 | 1035±5591125568-2033 | 436±363204.916.6-1250 | \* | ns | \*\* | Inflammation, recruits monocytes/macrophages and NK cells |
| **MCP-1/CCL2** | 189±7220336.91-282.9 | 193±115236.50-2071 | 1121±4551170640-1999 | 915±925480.1153.1-2711 | \*\*\* | ns | ns | Inflammation, recruits monocytes, memory T cells, and dendritic cells |
| **IP-10/CXCL10** | 9374±5498107671461-19251 | 14901±2618733090-20550 | 16543±32261583212704-22477 | 10438±757574871762-20329 | ns | ns | ns | Inflammation, angiogenesis; recruits monocytes/macrophages, T cells, NK cells, and dendritic cells,  |
| **G-CSF** | 7.58± 9.043.950.7-28.7 | 15.32± 21.910.90-54.48 | 1836± 2571879411-8939 | 32.69± 41.895.80-116.3 | \*\* | ns | \*\* | Growth Factor, survival, proliferation, differentiation of neutrophils  |
| **FGF** | 33.32±22.09320-68.8 | 11.17±11.117.750-30.5 | 24.91±23.9025.50-49 | 21.20±17.2420.50-58.5 | ns | ns | ns | Growth Factor, angiogenesis |
| **VEGF**  | 701±134699565.8-1027 | 269±167305.60-546.6 | 980±2971008611-1314 | 613±1020280.661.6-8470 | ns | ns | \*\* | Growth Factor, angiogenesis  |
| **PDGF** | 12.08±6.1811.054.8-24.5 | 4.08±4.491.850-11.6 | 36.74±32.0734.81.8-117 | 14.82±18.206.10-52.6 | ns | ns | ns | Growth factor, angiogenesis |
| **RANTES** | 127.5 ± 285.755.90-1031 | 0.2 ± 0.30700-0.8 | 143.2 ± 183.474.55.5-536.3 | 570.2 ± 758.7360.10-2440 | ns | \* | ns |  |
| **Eotaxin** | 57.56±74.1346.30-221.3 | 9.72±9.857.750-30.5 | 24.37±24.2114.15.3-87 | 21.8±16.5120.50-58.5 | ns | ns | ns | Eosinophil chemoattractant |

**.**