

Supplementary Material

Table S1. Yamaguchi criteria for the diagnosis of adult-onset Still's disease

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|--|--|
| Major criteria | Fever $\geq 39^{\circ}\text{C}$ lasting ≥ 1 week Arthralgia or arthritis lasting ≥ 2 weeks Nonpruritic salmon-colored rash (usually over trunk or extremities while febrile) Leukocytosis ($\geq 10,000/\text{mm}^3$) with granulocyte predominance ($\geq 80\%$) |
| Minor criteria | Sore throat Lymphadenopathy Hepatomegaly or splenomegaly Abnormal liver function test Negative tests for antinuclear antibody and rheumatoid factor |
| Exclusion criteria | Infection Malignancy Other rheumatic disease |
| At least 5 criteria, including 2 major criteria and no exclusion criteria, are required for diagnosis. | |

Table S2. Comparison of clinical characteristics between the IL-37 and IL-18 dominant groups in patients with adult-onset Still's disease^a

| | IL-37 dominant group (N=10) | IL-18 dominant group (N=10) | p |
|---|--------------------------------|--------------------------------|------|
| Age | 49 (39 – 58) | 44 (37 – 52) | 0.63 |
| Female, n (%) | 9 (90.0) | 8 (80.0) | 1.00 |
| Disease duration (months) | 41 (18 – 88) | 50 (19 – 122) | 0.74 |
| Number of Yamaguchi criteria met, at diagnosis | 7 (6 – 7) | 7 (6 – 7) | 0.87 |
| AOSD disease course, n (%) | | | 0.73 |
| Monocyclic systemic | 3 (30.0) | 4 (40.0) | |
| Polycyclic systemic | 3 (30.0) | 4 (40.0) | |
| Chronic articular | 4 (40.0) | 2 (20.0) | |
| Number of disease flares (per year) | 1 (1 – 2.5) | 3 (1 – 4.5) | 0.50 |
| Disease activity parameters at high disease activity status | | | |
| Modified Pouchot score | 7 (6 – 7) | 6 (6 – 7) | 0.97 |
| Fever, n (%) | 9 (90) | 9 (90) | 1.00 |
| Evanescence rash, n (%) | 9 (90) | 7 (70) | 0.58 |
| Sore throat, n (%) | 9 (90) | 5 (50) | 0.14 |
| Arthritis, n (%) | 9 (90) | 8 (80) | 1.00 |
| Myalgia, n (%) | 8 (80) | 9 (90) | 1.00 |
| Pleuritis, n (%) | 0 (0) | 3 (30) | 0.21 |
| Pericarditis, n (%) | 0 (0) | 1 (10) | 1.00 |
| Pneumonitis, n (%) | 3 (30) | 3 (30) | 1.00 |
| Lymphadenopathy, n (%) | 2 (20) | 2 (20) | 1.00 |
| Hepatomegaly or abnormal LFT ^b , n (%) | 6 (60) | 8 (80) | 0.63 |
| Hepatomegaly | 1 (10) | 1 (10) | 1.00 |
| Abnormal LFT ^b | 5 (50) | 8 (80) | 0.35 |
| WBC > 15,000 ($10^9/\text{L}$), n (%) | 6 (60) | 3 (30) | 0.37 |
| Ferritin > 3,000 (ng/mL), n (%) | 2 (20) | 7 (70) | 0.07 |

| Laboratory findings | | | |
|---|-------------------------|---------------------------|------|
| WBC ($10^9/L$) | 16.4 (8.4 – 24.0) | 10.8 (6.3 – 17.0) | 0.25 |
| ESR (mm/hr) | 102.5 (62.0 – 115.0) | 73.0 (36.0 – 83.0) | 0.09 |
| CRP (mg/dL) | 8.8 (5.3 – 15.0) | 4.1 (2.8 – 7.6) | 0.11 |
| AST (U/L) | 30.5 (22.0 – 40.0) | 42.0 (29.0 – 69.0) | 0.17 |
| ALT (U/L) | 23.5 (12.0 – 49.0) | 45.0 (17.0 – 90.0) | 0.12 |
| LDH (U/L) | 302.0 (246.0 – 354.0) | 492.0 (355.0 – 522.0) | 0.01 |
| Ferritin (ng/mL) | 2069.5 (727.0 – 2628.0) | 5246.5 (2268.0 – 11254.0) | 0.11 |
| Medications used at high disease activity status | | | |
| Corticosteroids, n (%) | 8 (80.0) | 7 (70.0) | 1.00 |
| Methotrexate, n (%) | 7 (70.0) | 3 (30.0) | 0.18 |
| Leflunomide, n (%) | 0 (0) | 3 (30.0) | 0.14 |
| Cyclosporin A, n (%) | 1 (10.0) | 1 (10.0) | 1.00 |
| Interval between high and low disease activity status (months) | 8 (4 – 9) | 4 (3 – 6) | 0.06 |
| Patients with re-flare within 1 year after low disease activity status, n (%) | 2 (33.3) | 3 (50.0) | 1.00 |
| Duration until re-flare (months) | 3.0 (2.2 – 11.5) | 4.8 (4.1 – 5.5) | 0.77 |

IL, interleukin; AOSD, adult-onset Still's disease; LFT, liver function test; WBC, white blood cells; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein; AST, aspartate aminotransferase; ALT, alanine aminotransferase; LDH, lactate dehydrogenase.

^a Values are median (Q1–Q3) unless otherwise indicated.

^b Defined as abnormal value of AST, ALT, or alkaline phosphatase