

Supplementary Table 1. Baseline clinical characteristics of enrolled patients

| Characteristics | All patients with DAS28 <2.6 at first year follow up (n=680) | Patients with DAS28 <2.6 and VAS-pain ≥4 (n=146) | Patients with DAS28 <2.6 and VAS-pain <4 (n=534) | p-value |
|--|--|--|--|---------|
| Age (yr) | 53.0±13.0 | 54.4±13.5 | 52.7±12.8 | 0.057 |
| Female | 553 (81.3) | 121 (82.9) | 432 (80.9) | 0.587 |
| Marital status, married | 598 (87.9) | 125 (85.6) | 473 (88.6) | 0.330 |
| Smoking history | | | | 0.986 |
| Ex-smoker | 63 (9.3) | 13 (8.9) | 50 (9.3) | |
| Current smoker | 42 (6.2) | 9 (6.2) | 33 (6.2) | |
| Never | 575 (84.5) | 124 (84.9) | 451 (84.5) | |
| BMI (kg/m ²) | 22.5±3.2 | 22.5±3.5 | 22.6±3.1 | 0.396 |
| Disease duration (yr) | 8.3±7.4 | 10.0±9.1 | 7.9±6.9 | 0.015 |
| Tender joint count* | 7.6±5.9 | 7.1±5.8 | 7.8±5.9 | 0.072 |
| Swollen joint count* | 6.1±5.0 | 5.8±5.3 | 6.2±4.9 | 0.197 |
| ESR (mm/h)* | 39.0 (23.0~56.0) | 38.5 (23.3~49.8) | 39.0 (23.0~57.0) | 0.213 |
| CRP (mg/dL)* | 1.3 (0.5~2.8) | 1.1 (0.5~2.6) | 1.4 (0.5~2.9) | 0.145 |
| Rheumatoid factor (positivity) (n=657) | 534/657 (81.3) | 111/141 (78.7) | 423/516 (82.0) | 0.380 |
| Anti-CCP antibody (positivity) (n=581) | 479/581 (82.4) | 103/125 (82.4) | 376/456 (82.5) | 0.988 |
| Pain VAS* | 6.0 (5.0~8.0) | 7.0 (5.0~8.0) | 6.0 (5.0~8.0) | <0.001 |
| Physician's GA* | 7.0 (5.0~8.0) | 6.0 (5.0~8.0) | 7.0 (5.0~8.0) | 0.065 |
| Patient's GA* | 7.0 (6.0~8.0) | 7.0 (6.0~9.0) | 7.0 (6.0~8.0) | 0.103 |
| CDAI * | 25.0 (20.0~31.0) | 23.5 (18.0~30.8) | 25.0 (20.0~31.0) | 0.048 |
| EQ-VAS (n=10)* | 7.0 (4.5~8.0) | 7.0 (5.0~7.5) | 7.0 (5.0~8.0) | 0.857 |
| RAPID3* | 15.3 (11.0~19.0) | 12.8 (16.7~19.7) | 15.0 (10.7~18.7) | 0.001 |
| Presence of hand erosions (n=583) | 201/583 (34.5) | 47/121 (38.8) | 154/462 (33.3) | 0.256 |
| Presence of foot erosions (n=431) | 150/431 (34.8) | 43/89 (48.3) | 107/342 (31.3) | 0.003 |

Data are presented as number (%), mean±standard deviation, or median (interquartile range), unless otherwise indicated. DAS28: disease activity score of 28 joints, VAS: visual analog scale, BMI: body mass index, ESR: erythrocyte sedimentation rate, CRP: C-reactive protein, CCP: cyclic citrullinated peptide, GA: global assessment, CDAI: clinical disease activity index, EQ-VAS: EuroQol visual analog scale, RAPID3: routine assessment of patient index data 3. Continuous data were assessed by independent t-test, and categorical data were analyzed by chi-square test. *These data were assessed by Mann-Whitney U-test.

Supplementary Table 2. Baseline medication, extraarticular manifestations, and comorbidities of enrolled patients

| Characteristics | All patients with DAS28 <2.6 at first year follow up (n=680) | Patients with DAS28 <2.6 and VAS-pain ≥4 (n=146) | Patients with DAS28 <2.6 and VAS-pain <4 (n=534) | p-value |
|------------------------------|--|--|--|---------|
| Previous treatment | | | | |
| Prior use of methotrexate | 650 (95.6) | 137 (93.8) | 513 (96.1) | 0.245 |
| Prior use of biologic agents | 159 (23.4) | 45 (30.8) | 114 (21.3) | 0.017 |
| Current treatment | | | | |
| bDMARDs or tsDMARDs | | | | 0.001 |
| Anti-TNF | 270 (39.7) | 53 (36.3) | 217 (40.6) | |
| Rituximab | 3 (0.4) | 0 (0.0) | 3 (0.6) | |
| Tocilizumab | 294 (43.2) | 82 (56.2) | 212 (39.7) | |
| Abatacept | 63 (22.5) | 7 (4.8) | 56 (10.5) | |
| JAKis | 50 (7.4) | 4 (2.7) | 46 (8.6) | |
| Corticosteroid use | 444 (65.3) | 116 (79.5) | 328 (61.4) | <0.001 |
| Concomitant cDMARDs use | 598 (87.9) | 126 (86.3) | 472 (88.4) | 0.492 |
| Comorbidities* | | | | |
| Cardiovascular disorders | 258 (37.9) | 67 (45.9) | 191 (35.8) | 0.026 |
| Neurological disorders | 13 (1.9) | 7 (4.8) | 6 (1.1) | 0.004 |
| Pulmonary disorders | 26 (3.8) | 3 (2.1) | 23 (4.3) | 0.209 |
| Endocrine disorders | 243 (35.7) | 62 (42.5) | 181 (33.9) | 0.055 |
| Renal disorders | 5 (0.7) | 3 (2.1) | 2 (0.4) | 0.069 |
| Gastrointestinal disorders | 20 (2.9) | 3 (2.1) | 17 (3.2) | 0.590 |
| Viral/infectious disorders | 28 (4.1) | 7 (4.8) | 21 (3.9) | 0.642 |
| Drug abuse/dependence | 1 (0.1) | 0 (0.0) | 1 (0.2) | 0.999 |
| Mental illness | 12 (1.8) | 6 (4.1) | 6 (1.1) | 0.015 |
| Hematology & Oncology | 277 (40.7) | 64 (43.8) | 213 (39.9) | 0.390 |

Data are presented as number (%). DAS28: disease activity score of 28 joints, VAS: visual analog scale, bDMARDs: biologic disease modifying anti-rheumatic drugs, tsDMARDs: targeted synthetic DMARDs, TNF: tumor necrosis factor, JAKis: janus kinase inhibitors, cDMARDs: conventional DMARDs. *These data were assessed by chi-square test or Fisher exact test due to low frequency.