

Supplementary Information

Urinary interleukin-6 as a predictor of radiographic progression in rheumatoid arthritis: A 3-year evaluation

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Supplementary Table 1. Increase in the risk of radiographic progression at 3 years by combination of urinary IL-6, IL-8, and CCL2 tertiles

Categories based on urinary proteins*	Odds ratio [†] (95% confidence interval)
Categories based on IL-6 and IL-8 levels*	
Both low (n=27)	1
Both mid (n=64)	1.9 (0.6-4.7)
High IL-6 (n=32)	2.7 (0.9-8.1)
High IL-8 (n=26)	3.5 (0.7-11.2)
Both high (n=24)	3.1 (0.9-9.2)
Categories based on IL-6 and CCL2 levels*	
Both low (n=23)	1
Both mid (n=59)	2.9 (0.7-11.9)
High IL-6 (n=31)	3.3 (0.8-13.1)
High CCL2 (n=34)	1.4 (0.1-2.3)
Both high (n=26)	6.2 (1.4-26.4)
Categories based on IL-8 and CCL2 levels*	
Both low (n=25)	1
Both mid (n=56)	2.9 (0.9-14.3)
High IL-8 (n=34)	2.4 (0.2-24.5)
High CCL2 (n=33)	5.0 (0.6-41.4)
Both high (n=25)	6.1 (1.8-37.9)

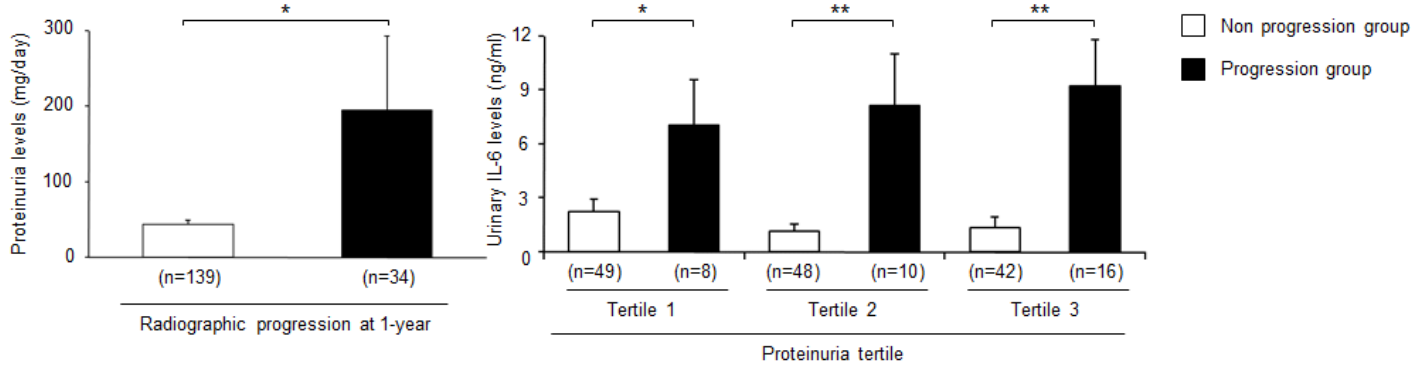
* Both low (reference): IL-6 level below the first tertile (< 29.9), IL-8 level below the first tertile (< 10.4), and CCL2 level below the first tertile (85.1); both mid: mid-range values of IL-6, IL-8 or CCL2, but neither high; high IL-6: high IL-6 level only (IL-6 > 116.9); high IL-8: high IL-8 level only (IL-8 > 92.0); high CCL2: high CCL2 level only (CCL2 > 195); both high: both IL-6 and IL-8 levels in the highest tertile (IL-6 ≥116.9 and IL-8 ≥ 92.0); both IL-6 and CCL2 levels in the highest tertile (IL-6 ≥116.9 and CCL2 ≥195); both IL-8 and CCL2 levels in the highest tertile (IL-8 ≥92.0 and CCL2 ≥195). IL-6, IL-8, and CCL2 levels were adjusted for urine creatinine and expressed as units [(ng/mL)/(mg/dL)]X1000.

† Adjusted for age, sex, smoking status, disease duration, disease activity scores in 28 joints, use of methotrexate, and use of anti-tumor necrosis factor therapy.

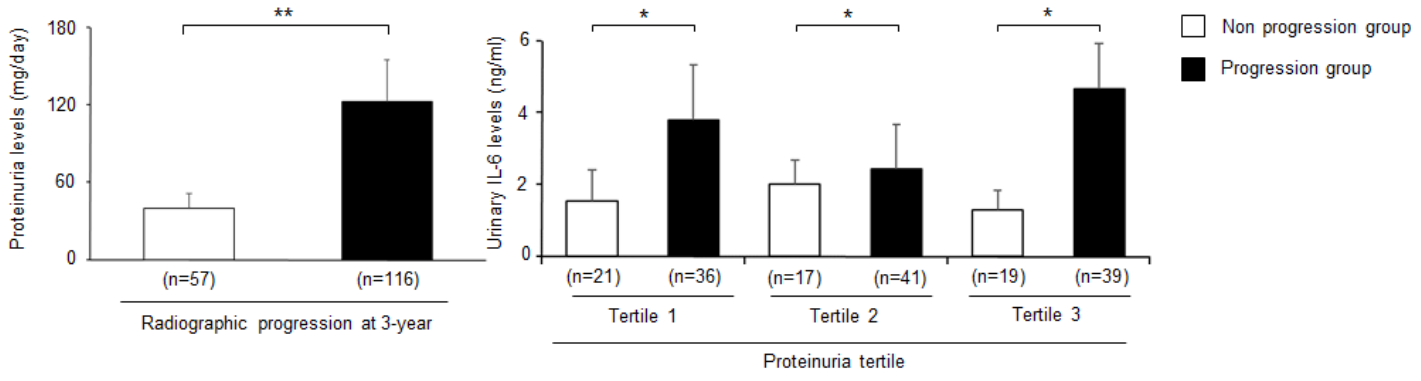
Supplementary Figure Legend

Supplementary Figure 1. Relationship between urine IL-6 level and proteinuria, ESR, and serum CRP for predicting radiographic progression of RA at 3 years. **A.** (Left) Comparison of proteinuria levels between radiographic progression and non-progression groups at 1 year. (Right) Urinary IL-6 levels between radiographic progression and non-progression groups at 1 year according to the extent of proteinuria (tertiles 1, 2, and 3). **B.** (Left) Comparison of proteinuria levels between radiographic progression and non-progression group at 3 years. (Right) Urinary IL-6 levels between radiographic progression and non-progression groups at 3 years according to the extent of proteinuria (tertiles 1, 2, and 3). **C and D.** Predicted probability plot of high urinary IL-6 (≥ 1.17 ng/ml: upper tertile of urinary IL-6) for radiographic progression in association with serum CRP (**C**) and ESR levels (**D**) in patients with RA (red circles indicate the upper tertile of ESR or CRP: $\text{ESR} \geq 45$ mm/hour and $\text{CRP} \geq 1.34$ mg/dl, black circles indicate the lower tertile of ESR or CRP: $\text{ESR} < 45$ mm/hour and $\text{CRP} < 1.34$ mg/dl). * $P < 0.05$ and ** $P < 0.01$.

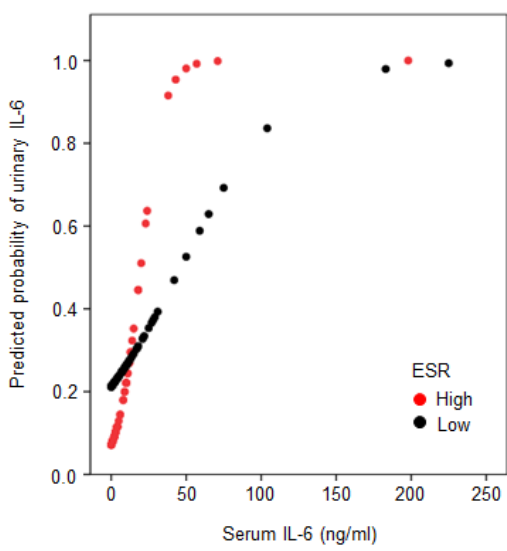
A.



B.



C.



D.

