

Variables	with X-ray (n = 51)	without X-ray (n = 25)	P value
Age (years)	69.4 ± 1.3	69.8 ± 2.4	0.453
Sex, female (%)	39 (76.5)	22 (88.0)	0.359
Duration of RA disease (years)	17.2 ± 1.9	11.1 ± 1.6	0.039
DAS28-CRP	1.48 ± 0.05	1.53 ± 0.07	0.552
DAS28-ESR	1.74 ± 0.11	2.11 ± 0.14	0.051
HbA1c (%)	5.8 ± 0.1	5.9 ± 0.1	0.549
eGFR (mL/min/1.73 m ²)	70.4 ± 2.0	65.9 ± 4.1	0.274
TRACP-5b (mU/dL)	278.6 ± 23.2	309.5 ± 33.0	0.453
total P1NP (µg/L)	51.7 ± 3.8	42.9 ± 4.2	0.178
Pentosidine (µg/mL)	0.0545 ± 0.0020	0.0535 ± 0.0027	0.775
Methotrexate use (%)	32 (62.7)	15 (60.0)	0.817
Other csDMARD use (%)	21 (41.2)	12 (48.0)	0.573
b/tsDMARD use (%)	19 (37.3)	9 (36.0)	0.915
Prevalence of osteoporosis (%)	28 (54.9)	12 (48.0)	0.566
Glucocorticoid use (%)	17 (33.3)	12 (48.0)	0.315
Glucocorticoid daily dose (mg/day)	1.1 ± 0.3	2.1 ± 0.5	0.091
Cumulative glucocorticoid exposure (g)	6.4 ± 1.4	4.3 ± 0.9	0.584
Any anti-osteoporosis medication use (%)	28 (54.9)	12 (48.0)	0.566
Bisphosphonate use (%)	7 (13.7)	6 (24.0)	0.334
SERM use (%)	4 (7.8)	2 (8.0)	>0.999
Vitamin D use (%)	10 (19.6)	4 (16.0)	>0.999
Denosumab use (%)	9 (17.6)	1 (4.0)	0.152
PTH use (%)	2 (3.9)	0 (0.0)	>0.999
Romosozumab use (%)	1 (2.0)	0 (0.0)	>0.999

Supplementary Table S1 Baseline characteristics of participants with and without available thoracolumbar spine radiographs in the remission group. Data are presented as mean ± SD or number (%). Any anti-osteoporosis medication use included bisphosphonates, SERMs, active vitamin D analogues, denosumab, PTH analogues, and romosozumab. Statistical analyses were performed using Student's *t*-test, Wilcoxon rank-sum test, Fisher's exact test, or chi-squared test, as appropriate. The Wilcoxon rank-sum test was used for glucocorticoid daily dose and cumulative glucocorticoid exposure because these variables were not normally distributed.

Abbreviations: RA, rheumatoid arthritis; DAS28, Disease Activity Score in 28 joints; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; HbA1c, hemoglobin A1c; eGFR, estimated glomerular filtration rate; TRACP-5b, tartrate-resistant acid phosphatase-5b; P1NP,

procollagen type 1 N-terminal propeptide; csDMARD, conventional synthetic disease-modifying antirheumatic drug; b/tsDMARD, biological or targeted synthetic disease-modifying antirheumatic drug; SERM, selective oestrogen receptor modulator; PTH, parathyroid hormone.