

## Supplementary data

Table 2. RSA variables at 6 months, 12 months, and 24 months (MTPM, x-, y-, and z-translation in mm, and rotation in degrees) P: placebo; D: denosumab. All MTPM variables showed a significant difference. Only 6-month x-translation and 12-month rotation showed a significant difference. Translation is defined as medial-lateral (X), distal-proximal (Y), and posterior-anterior (Z). A positive value means X being medial, Y being superior, and Z being anterior. Rotation about the X-axis is defined as flexion-extension, rotation about the Y-axis as external-internal rotation, and rotation about the Z-axis as abduction-adduction. A positive values means X being extension, Y being internal, and Z being adduction

Months	Group	MTPM		Translation			Rotation		
		mean (ln) (SD)	median (10–90% percentile range)	X mean (SD)	Y mean (SD)	Z mean (SD)	X mean (SD)	Y mean (SD)	Z mean (SD)
6	P	-1.11 (0.59)	0.30 (0.17–0.88)	-0.03 (0.08)	-0.01 (0.12)	0.03 (0.06)	-0.21 (0.25)	-0.03 (0.18)	-0.06 (0.27)
	D	-1.46 (0.42)	0.22 (0.14–0.40)	-0.01 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.07 (0.23)	-0.32 (1.51)	-0.12 (0.35)
12	P	-1.11 (0.51)	0.36 (0.20–0.62)	-0.02 (0.06)	-0.01 (0.14)	0.04 (0.06)	-0.23 (0.26)	-0.08 (0.18)	-0.04 (0.27)
	D	-1.39 (0.45)	0.24 (0.15–0.41)	-0.01 (0.06)	0.03 (0.08)	0.01 (0.07)	-0.13 (0.23)	0.01 (0.09)	-0.04 (0.21)
24	P	-1.03 (0.53)	0.39 (0.18–0.76)	-0.03 (0.07)	-0.03 (0.15)	0.04 (0.06)	-0.31 (0.32)	-0.03 (0.17)	0.02 (0.24)
	D	-1.29 (0.44)	0.27 (0.14–0.45)	-0.01 (0.06)	0.01 (0.08)	0.02 (0.06)	-0.16 (0.25)	-0.01 (0.17)	-0.02 (0.25)

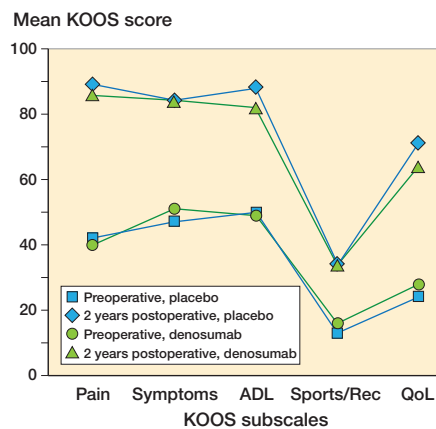


Figure 4. KOOS sub-variables showed no statistically significant difference between denosumab and placebo.