

Supplementary data

Table 2. Radiographic variables. Values are mean (SD)

Item	Retrieval group	Control group
Tibial component alignment (°)	88 (2.2)	88 (1.7)
Femoral component alignment (°)	96 (2.5)	97 (2.5)
Tibiofemoral alignment + (°)	184 (3.3)	185 (3.2)
Tibial slope (°)	84 (4.1)	84 (3.1)
Femoral flexion (°)	13 (3.2)	12 (3.1)
Average bone cement thickness (mm) ^a	2.8 (0.8)	3.4 (0.9)

^a zone 1–4

Table 3. Logistic regression cases vs. controls modelled as isolated covariate measures of interest and as a joint model

Item	Missing	Isolated covariate models						Joint model	
		OR (CI)	p	OR (CI)	p	OR (CI)	p	OR (CI)	p
Tibial align (°)	3	1.1	0.7					1.2	0.4
		(0.8–1.4)						(0.9–1.6)	
Femoral align (°)	2			0.8	0.04			0.8	0.1
				(0.7–1.0)				(0.6–1.0)	
Tibial slope (°)	2			1.0	0.8			1.0	0.8
				(0.9–1.2)				(0.8–1.2)	
Femoral flexion (°)	2					1.0	0.7	1.0	0.8
						(0.9–1.2)		(0.8–1.2)	
Cement thickness (mm)	7						0.4	0.01	0.3
							(0.2–0.8)		(0.1–0.7)
BMI	3							1.0	0.6
								(0.9–1.1)	
Age		1.0	0.4	1.0	0.3	1.0	0.3	1.0	0.9
		(0.9–1.0)		(0.9–1.0)		(0.9–1.0)		(1.0–1.1)	
Sex								1.0	0.2
M (n = 28)		1		1		1		1	
F (n = 47)		0.9	0.8	1.0	0.9	0.9	0.9	1.8	0.3
		(0.3–2.3)		(0.4–2.6)		(0.4–2.5)		(0.6–5.5)	
								1.2	0.7
								(0.4–3.2)	
								2.5	0.2
								(0.6–9.7)	

Odds ratios (OR) are reported with 95% confidence intervals (CI). Note the dependent variable is coded as 1 for failure due to aseptic loosening and 0 for no event.

Table 4. Correlations between implant alignment of the failed LCS group and time in situ

Item	Pearson's R	p-value
Tibial component alignment (°)	0.38	0.04
Tibiofemoral alignment + (°)	0.16	0.4
Tibial slope (°)	0.23	0.2
Femoral flexion (°)	0.04	0.9

Table 5. Wear particle load and presence of multinucleated giant cells in periprosthetic tissue samples as described by a modified Mirra classification in 11 patients

Item	Grade 0	Grade 1+	Grade 2+	Grade 3+
Bone cement (ZrO ₂)	3	1	1	6
Metal (CoCr)	2	3	6	0
Polyethylene	0	7	4	0
Giant cells	1	2	4	4