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

		Isolated covariate models						Joint model
Item	Missing	OR (CI) p	OR (CI) p	OR (CI) p	OR (CI) p	OR (CI) p	OR (CI) p	OR (CI) p
Tibial align (°)	3	1.1 0.7 (0.8–1.4)						1.2 0.4 (0.9–1.6)
Femoral align (°)	2		0.8 0.04 (0.7–1.0)					0.8 0.1 (0.6–1.0)
Tibial slope (°)	2			1.0 0.8 (0.9–1.2)				1.0 0.8 (0.8–1.2)
Femoral flexion (°)	2				1.0 0.7 (0.9–1.2)			1.0 0.8 (0.8–1.2)
Cement thickness (mm)	7					0.4 0.01 (0.2–0.8)		0.3 0.01 (0.1–0.7)
BMI	3						1.0 0.6 (0.9–1.1)	0.9 0.3 (0.8–1.1)
Age		1.0 0.4 (0.9–1.0)	1.0 0.3 (0.9–1.0)	1.0 0.3 (0.9–1.0)	1.0 0.3 (0.9–1.0)	1.0 0.9 (1.0–1.1)	1.0 0.2 (0.9–1.1)	1.0 0.6 (0.9–1.1)
Sex								
M (n = 28)		1	1	1	1	1	1	1
F (n = 47)		0.9 0.8 (0.3–2.3)	1.0 0.9 (0.4–2.6)	0.9 0.9 (0.4–2.5)	0.9 0.9 (0.4–2.4)	1.8 0.3 (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