

TABLE E-1 Variables Assessed for Association with the Presence of Femoral Osteolysis

Variable	Femoral Osteolysis	No Femoral Osteolysis	P Value
Number of Patients	28	44	
Number of Hips	32	56	
Age, years	55.0 ± 11.1	54.8 ± 11.2	0.93
Weight, kg	84.4 ± 12.6	82.1 ± 18.0	0.57
Gender			0.03
Male	20 (71)	19 (43)	
Female	8 (29)	25 (57)	
Side			0.55
Left	16 (50)	23 (41)	
Right	16 (50)	33 (59)	
Laterality			1.00
Unilateral THA	24 (86)	38 (86)	
Bilateral THA	4 (14)	6 (14)	
Diagnosis			0.07
Osteonecrosis	12 (38)	21 (38)	
Osteoarthritis	20 (63)	27 (48)	
Other	0 (0)	8 (14)	
Head Size			0.04
28	28 (88)	55 (98)	
32	4 (13)	1 (2)	
Poly Thickness	9.5 ± 2.4	9.0 ± 2.1	0.31
<8 mm	10 (31)	17 (30)	
>8 mm	22 (69)	39 (70)	
Length of Implantation			0.92
<8 years	23 (72)	46 (82)	
>8 years	9 (28)	10 (18)	
Wear Rate, mm/year	0.17 ± 0.11	0.15 ± 0.08	0.30
Walking Distance			0.25
<6 blocks	1 (3)	7 (13)	
>6 blocks	31 (97)	49 (88)	
Cerclage Wires	5 (16)	4 (7)	0.28
Cup Inclination			0.48
<45 degrees	23 (72)	35 (63)	
>45 degrees	9 (28)	21 (38)	
Thigh Pain	3 (9)	5 (9)	0.99

Continuous variables are reported in terms of the mean and the standard deviation, and the groups were compared with use of the Student t test. Fisher's exact test was used to compare categorical variables, and percentages are shown in parentheses. Significant differences between the two groups were found only with respect to gender and head size ( $p \leq 0.05$  for both).

Multiple stepwise logistic regression indicated that head size was the only significant independent predictor of osteolysis (odds ratio = 1.7, 95% confidence interval = 1.2 to 2.5,  $p = 0.03$ ). No other significant multivariate risk factors were found.