

TABLE E-1 Data on the Patients

Case	Age (yr)/ Gender	Failure Type	Previous Fixation Device*	Acetabular Component	Femoral Component	Approach	Duration of Follow-up (mo)	Reason for Revision	Surgical Complications
1	86/F	Acute cut-out	Gamma nail	Bipolar	Long-stem cemented	Transtrochanteric	30	—	
2	63/F	Nonunion cut-out	DHS	Bipolar	Long-stem cemented	Transtrochanteric	185	—	
3	83/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Anterolateral	60	—	
4	85/F	Nonunion	DHS	Uncemented	Calcar cemented	Transtrochanteric	29	—	
5	79/F	Nonunion cut-out infected	DHS	Bipolar	Calcar cemented	Transtrochanteric	44	—	
6	69/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Posterior	28	—	
7	78/F	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	44	—	
8	85/F	Nonunion cut-out	DHS	Cemented	Calcar cemented	Transtrochanteric	124	—	
9	73/F	Nonunion	DHS	Uncemented	Calcar cemented	Posterior	32	—	
10	88/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Transtrochanteric	28	—	
11	77/F	Nonunion	DHS	Cemented	Standard cemented	Anterolateral	25	—	
12	83/F	Nonunion	DHS	Cemented	Standard cemented	Anterolateral	28	—	
13	64/F	Nonunion	DHS	Uncemented	Long-stem cemented	Transtrochanteric	132	Aseptic loosening	
14	85/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Anterolateral	96	—	
15	71/M	Nonunion cut-out	DHS	Uncemented	Long-stem cemented	Transtrochanteric	33	—	
16	87/F	Nonunion	Gamma nail	Cemented	Calcar cemented	Anterolateral	75	—	
17	86/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Anterolateral	52	—	
18	87/M	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	25	—	
19	84/F	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	65	—	Intraop. femoral fracture; wired
20	70/F	Nonunion	DHS	Cemented	Standard cemented	Anterolateral	63	—	
21	82/M	Nonunion	DHS	Thompson endoprosthesis	Thompson endoprosthesis standard	Anterolateral	45	—	
22	61/M	Nonunion infected	Zickel nail	Uncemented	Standard uncemented	Anterolateral	168	Osteolysis	
23	82/F	Nonunion cut-out	Jewett nail	Cemented	Calcar cemented	Transtrochanteric	45	—	
24	87/M	Nonunion	DCS	Bipolar	Calcar cemented	Transtrochanteric	63	—	

25	85/F	Nonunion	DHS	Cemented	Calcar cemented	Transtrochanteric	52	—	
26	81/F	Nonunion	DHS	Cemented	Long-stem cemented	Transtrochanteric	46	—	
27	81/M	Nonunion	DHS	Cemented	Standard cemented	Transtrochanteric	74	—	
28	77/F	Nonunion infected	DHS	Cemented	Long-stem cemented	Transtrochanteric	73	—	
29	65/F	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	125	—	
30	72/F	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	25	—	Hematoma; irrigation and débridement × 2
31	66/F	Nonunion	DHS	Cemented	Calcar cemented	Anterolateral	126	—	
32	96/F	Acute cut-out	DHS	Bipolar	Calcar cemented	Transtrochanteric	25	—	
33	69/F	Nonunion	Blade-plate	Bipolar	Calcar cemented	Anterolateral	33	—	
34	78/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Anterolateral	42	—	
35	76/F	Nonunion cut-out	DHS	Cemented	Calcar cemented	Anterolateral	64	—	
36	83/F	Nonunion	DHS	Bipolar	Calcar cemented	Transtrochanteric	70	—	
37	70/F	Nonunion	DHS	Cemented	Calcar cemented	Anterolateral	122	—	
38	82/F	Nonunion	DHS	Bipolar	Standard cemented	Anterolateral	78	—	
39	80/F	Nonunion	DHS	Cemented	Calcar cemented	Transtrochanteric	29	—	Dislocation × 2
40	82/F	Nonunion	None	Bipolar	Extended-neck cemented	Anterolateral	76	—	
41	63/M	Nonunion cut-out	DHS	Uncemented	Calcar cemented	Transtrochanteric	64	—	
42	54/M	Nonunion	Jewett nail	Bipolar	Uncemented standard	Anterolateral	123	—	
43	70/F	Nonunion	DHS	Bipolar	Calcar cemented	Anterolateral	66	—	
44	78/F	Nonunion	DHS	Bipolar	Long-stem cemented	Anterolateral	25	—	
45	74/F	Nonunion	Jewett nail	Cemented	Long-stem cemented	Transtrochanteric	<2 yrs	—	
46	81/F	Nonunion cut-out	DHS	Cemented	Long-stem cemented	Anterolateral	<2 yrs	—	
47	87/F	Nonunion cut-out	DHS	Bipolar	Calcar cemented	Transtrochanteric	<2 yrs	—	
48	79/F	Nonunion cut-out	DHS	Uncemented	Calcar cemented	Posterior	<2 yrs	—	
49	77/F	Nonunion	DHS	Cemented	Long-stem cemented	Anterolateral	<2 yrs	—	
50	70/F	Nonunion	DHS	Cemented	Long-stem cemented	Anterolateral	<2 yrs	—	
51	76/M	Nonunion	DHS	Cemented	Extended-neck cemented	Anterolateral	<2 yrs	—	

52	84/F	Nonunion	DHS	Bipolar	Long-stem cemented	Anterolateral	<2 yrs	—	
53	72/F	Acute	DHS	Bipolar	Calcar cemented	Transtrochanteric	<2 yrs	—	
54	84/F	Acute cut-out	DHS	Bipolar	Calcar cemented	Transtrochanteric	<2 yrs	—	
55	60/F	Nonunion cut-out	DHS	Cemented	Calcar cemented	Anterolateral	<2 yrs	—	
56	72/F	Nonunion cut-out	DHS	Cemented	Calcar cemented	Anterolateral	<2 yrs	—	
57	87/F	Nonunion	Multiple screws	Cemented	Calcar cemented	Anterolateral	<2 yrs	—	Proximal femoral fracture; wired
58	84/M	Nonunion	DHS	Cemented	Long-stem cemented	Transtrochanteric	<2 yrs	—	
59	78/F	Nonunion	DHS	Cemented	Extended-neck cemented	Anterolateral	<2 yrs	—	
60	82/M	Nonunion	DHS	Uncemented	Uncemented standard	Posterior	<2 yrs	—	

*DHS = dynamic hip screw, and DCS = dynamic condylar screw.