

TABLE E-1 Inflammatory Response, Microbiological Results, and Histological Results in First and Second Stages of Exchange Arthroplasty

Case	First Stage				No. of Days Between First and Second Stages of Revision Arthroplasty	Second Stage			
	C-Reactive Protein Level (mg/dL)	Number of Positive Samples/ Number of Samples Taken for Culture	PMN*	Microorganism†		C-Reactive Protein Level (mg/dL)	Number of Positive Samples/ Number of Samples Taken for Culture	Microorganism†	Duration of Follow-up After Reimplantation Arthroplasty (mo)
1	1.9	5/9	>5	CNS	84	0.9	0/7	Negative	31
2	3.9	5/9	>5	Peptostreptococcus species	100	0.9	1/9	CNS	14
3	9.2	5/8	>5	Staphylococcus aureus	150	0.2	2/7	CNS	12
4	11.2	7/7	>5	Enterobacter species	260	1.0	0/8	Negative	12
5	10.5	6/8	>5	CNS	70	0.2	3/8	CNS	17
6	2.9	1/8	>5	CNS	164	0.7	3/8	CNS	9
7	2.5	4/8	<5	CNS	84	1.0	4/8	CNS	26
8	12.5	0/8	>5	Negative	630	0.5	0/10	Negative	36
9	4	4/7	>5	CNS	594	1.0	3/9	CNS	26
10	1.8	2/8	>5	CNS	123	0.4	2/8	CNS	39
11	3.2	6/6	>5	Enterobacter species	129	0.1	1/6	Streptococcus viridans	39
12	2.0	3/3	>5	CNS	132	0.1	0/7	Negative	8
13	2.8	3/4	>5	Staphylococcus aureus	247	0.5	0/3	Negative	43
14	4.2	2/5	>5	Serratia species	785	0.1	0/8	Negative	12
15	2.4	5/10	>5	Staphylococcus aureus, Candida species	265	0.1	2/8	Candida species	9
16	3.2	8/8	>5	CNS	80	1.0	0/9	Negative	10
17	7.5	9/9	>5	CNS	105	0.2	0/6	Negative	9
18	4.6	8/8	>5	Escherichia coli	128	0.4	0/7	Negative	8
19	1.3	3/7	<5	CNS	122	0.3	1/8	CNS	10
20	1.7	8/8	>5	CNS	115	0.1	0/7	Negative	7
21	2.2	6/6	>5	Salmonella species	80	0.1	0/7	Negative	8

*PMN = number of neutrophil(s) per high power field (×400) in at least five separate microscopic fields on frozen-section analysis. †CNS = coagulase-negative staphylococci.

TABLE E-2 Culture Results in the Second Stage of Revision Arthroplasty According to the Type of Sample (Solid, Liquid, or Swab)

Case	Number of Positive Samples/Number of Samples Taken for Culture	Number of Positive Samples/Number of Samples Taken for Culture			Microorganism*
		Solid Tissue Samples	Liquid Samples	Swab Samples	
1	0/7	0/2	0/3	0/2	Negative
2	1/9	1/4	0/2	0/3	CNS
3	2/7	0/2	2/3	0/2	CNS
4	0/8	0/3	0/3	0/2	Negative
5	3/8	3/4	0/1	0/3	CNS
6	3/8	0/4	2/2	1/2	CNS
7	4/8	2/3	2/3	0/2	CNS
8	0/10	0/6	0/1	0/3	Negative
9	3/9	1/4	2/2	0/3	CNS
10	2/8	0/5	0/1	2/2	CNS
11	1/6	0/1	0/2	1/3	<i>Streptococcus viridans</i>
12	0/7	0/3	0/2	0/2	Negative
13	0/3	0/2	0/0	0/1	Negative
14	0/8	0/3	0/3	0/2	Negative
15	2/8	0/4	2/2	0/2	Candida species
16	0/9	0/4	0/3	0/2	Negative
17	0/6	0/2	0/2	0/2	Negative
18	0/7	0/2	0/2	0/3	Negative
19	1/8	1/4	0/2	0/2	CNS
20	0/7	0/3	0/2	0/2	Negative
21	0/7	0/2	0/2	0/3	Negative

*CNS = coagulase-negative staphylococci.

TABLE E-3 Histological Results During the Second Stage of Exchange Arthroplasty

Case	Criterion A*		Criterion B†				Fibrosis‡
	Frozen-Section Analysis for Neutrophils	Paraffin-Embedded Section Analysis for Neutrophils	Frozen-Section Analysis for Neutrophils	Paraffin-Embedded Section Analysis for Neutrophils	Paraffin-Embedded Section Analysis for Lymphocytes	Paraffin-Embedded Section Analysis for Plasma Cells	
1	Negative	Negative	3	<1	1	<1	2
2	Negative	Negative	0	<1	3	<1	2
3	Negative	Negative	2	1	8	<1	1
4	Negative	Negative	1	<1	<1	<1	2
5	Negative	Negative	<1	<1	<1	<1	2
6	Positive	Positive	5	6	2	1	2
7	Negative	Negative	3	2	7	4	1
8	Negative	Negative	1	1	1	4	1
9	Negative	Negative	<1	<1	3	2	2
10	Negative	Negative	2	2	3	2	1
11	Negative	Negative	<1	<1	2	1	1
12	Negative	Negative	<1	<1	<1	<1	2
13	Negative	Negative	1	1	<1	<1	2
14	Negative	Negative	<1	<1	<1	<1	2
15	Positive	Positive	6	6	4	5	1
16	Negative	Negative	<1	<1	2	1	2
17	Negative	Negative	<1	<1	<1	<1	2
18	Negative	Negative	<1	<1	<1	<1	2
19	Negative	Negative	<1	<1	3	2	2
20	Negative	Negative	<1	<1	2	1	2
21	Negative	Negative	1	<1	1	<1	2

*According to Criterion A, the histological result was considered to be positive for infection when there were at least five neutrophils per high-power field (×400) in at least five separate microscopic fields. †According to Criterion B, the histological result was considered to be positive for infection when there was at least one neutrophil per high power field (×400), on average, after examination of ten microscopic fields. ‡0 = absent, 1 = moderate, and 2 = severe.