



Supplement of

Characteristics and outcomes of culture-negative prosthetic joint infections from the Prosthetic Joint Infection in Australia and New Zealand Observational (PIANO) cohort study

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Supplementary

Table S1: Case details of 10 culture negative PJI cases not meeting EBJIS PJI criterion for 'definitive' or 'likely'

						Diagnostic features and investigations									
Patient No.	Age at diagnosis	Joint type	Indication	Infection category	Clinical findings	Baseline CRP (mg/L)	Closed joint aspiration	Purulence surrounding the prosthesis	Intraoperative synovial fluid sent for culture	No. periprosthetic tissue specimens submitted for	No. periprosthetic specimens submitted for histopathology	Neutrophils PHPF &	histology findings	90-day Surgical management	24-month outcome
1	53	Нір	Primary	Early postoperative	Fever, local inflammation	-	-	Yes	-	-	-	-		DAIR	Successful
2	84	Knee	Primary	Late acute	Local inflammation	158	-	Yes	-	2	-	-		DAIR	Unsuccessful
3	63	Нір	Primary	Late acute	Nil	17	-	Yes	Yes	-	-	-		DAIR	Successful
4	85	Knee	Primary	Chronic	Local inflammation	180	-	Yes	Yes	6	-	-		DAIR	Unsuccessful
5	72	Shoulder	Primary	Late acute	Fever, local inflammation	236	-	Yes	Yes	-	-	-		DAIR	Successful

6	73	Нір	Primary	Unclassifiable	Nil	-	-	Yes	Yes	4	6	4	One stage	Successful
												Benign fibrous	revision	
												connective		
												tissue		
7	75	Knee	Primary	Unclassifiable	Local inflammation	116	-	Yes	Yes	4	-	-	Two stage	Successful
													revision	
8	75	Нір	Primary	Unclassifiable	Fever, local	89	-	Yes	-	6	-	-	DAIR	Successful
					inflammation									
9	70	Knee	Neither	Early	Fever, local	133	-	Yes	Yes	1	-	-	DAIR	Successful
			primary nor	postoperative	inflammation									
			infective											
10	61	Shoulder	Primary	Early	Local inflammation	300	-	Yes	Yes	5	-	-	Excision	Successful
				postoperative									arthroplasty	

Abbreviations: No., number; CRP, C-reactive protein; PHPF, per high powered field.

Table S2: Presenting features, diagnostic criterion, and outcomes of 16 late acute culture negative prosthetic joint infection managed with debridement, antibiotics, and

implant retention

Patient	Age,	Joint	Any	Clinical findings	Baseline	Closed	Synovial	Purulence	Intraoperative	No.	No.	Histology	24-month
No.	M/F		comorbidity	of fever, local inflammation, or sepsis	CRP (mg/L)	joint aspiration	fluid WCC (cells/µl) Synovial fluid neutrophil %	surrounding the prosthesis	synovial fluid sent for culture	periprosthetic tissue specimens submitted for culture	periprosthetic specimens submitted for histopathology	findings	outcome
1	84, F	Knee	No	Acute inflammation	158	-	-	Yes	-	2	0	-	Unsuccessful
2	81, F	Knee	Yes	Fever, acute inflammation	75	Yes	90%	-	-	6	0	-	Successful
3	82, F	Knee	Yes	Fever, acute inflammation	19	Yes	64000 85%	Yes	Yes	2	0	-	Successful
4	58 <i>,</i> F	Elbow	Yes	Fever, acute inflammation	103	Yes	100000 85%	Yes	Yes	7	0	-	Successful
5	61, F	Knee	Yes	Acute inflammation	130	Yes	130000 86%	Yes	Yes	2	0	-	Successful
6	65, F	Knee	No	Fever, acute inflammation	367	Yes	53500	Yes	Yes	3	0	-	Successful

7	63,	Нір	Yes	Nil	17	-	-	Yes	Yes	Not	-	-	Successful
	F									quantified			
8	61,	Knee	Yes	Acute	130	-	-	Yes	Yes	Not	-	-	Successful
	F			inflammation						quantified			
9	82,	Knee	Yes	Fever, acute	240	Yes	100%	-	Yes	6	0	-	Successful
	F			inflammation									
10	64,	Knee	Yes	Fever, acute	140	Yes	26100	Yes	Yes	5	0	-	Unsuccessful
	м			inflammation			78%						
11	65,	Knee	No	Fever, acute	250	Yes	183000	-	Yes	4	0	-	Successful
	F			inflammation			84%						
12	72,	Shoulder	Yes	Fever, acute	236	-	-	Yes	Yes	Not	-	-	Successful
	F			inflammation						quantified			
13	53,	Knee	Yes	Fever, acute	23	Yes	31	Yes	Yes	3	0	-	Unsuccessful
	F			inflammation			97%						
14	58,	Knee	Yes	Fever, acute	110	-	1000	-	Yes	3	1	Acute	Successful
	F			inflammation			96%					inflammation	

15	68,	Knee	Yes	Acute	190	Yes	154000	-	Yes	6	0	-	Successful
	F			inflammation			95%						
16	83,	Нір	No	Acute	150	-	-	-	Yes	Not	-	-	Successful
	м			inflammation						quantified			

Abbreviations: No., number; M, male; F, female; CRP, C-reactive protein; WCC, white cell count