

Supplementary Table 1. Results Data of the Patients

Case no.	Guttilo-Anderson	Wound location	Sander type	Operative procedure	Time to operation (hr/day)	Soft tissue complications	Wound culture
1	IIIA	Lateral	IV	Steinmann pin	9	Op site infection	MRSA
2	I	Lateral	IIIAB	Steinmann pin & cannulated screw	9	-	
3	II	Medial	IIA	5.0 cannulated screw & 4.0 cannulated screw	8	-	
4	IIIA	Medial	IIIAB	I & D/6.5 cannulated screw, 3.2 Steinmann pin	16/19	Op site infection	MRSE
5	IIIA	Posterolateral	0	I & D/Steinmann pin	4/17	Op site infection	GPB
6	II	Posterior	IIIAB	I & D/Steinman pin	13/5	-	
7	I	Medial	IIB	6.5 cannulated screw, 5.0 cannulated screw, 4.0 cannulated screw	21	-	
8	II	Medial	IIIAB	I & D/4.0 cannulated screw & 6.5 cannulated screw	9/11	-	
9	I	Medial	IV	6.5 cannulated screw & 4.0 cannulated screw, K-wire	11	Op site infection	MRSA
10	IIIA	Medial	IIIAB	Steinmann pin, K-wire	15	-	
11	IIIA	Medial	IIA	Steinmann pin	4	-	
12	IIIA	Medial	IIB	Steinmann pin	5	-	
13	II	Medial	0	Conservative	5	-	
14	II	Medial	0	5.0 cannulated screw	4	Op site infection	MRSA
15	I	Posterior	IIIAB	6.5 cannulated screw	14	-	
16	II	Medial	IIIAB	K-wire	20	Op site infection	<i>S. epidermidis</i>
17	IIIA	Posterolateral	0	4.0 cannulated screw	4	-	
18	IIIA	Medial	IIIAB	6.5 cannulated screw, 4.0 cannulated screw	15	Op site infection	<i>Aeromonas hydrophila</i>
19	IIIC	Medial	IV	Steinmann pin, K-wire	12	-	
20	IIIA	Medial	IIIAB	Steinmann pin, K-wire, 4.0 cannulated screw	12	-	
21	IIIB	Medial	IIIAB	Steinmann pin, allogeneous B/G	5	Op site infection	<i>Pseudomonas putida</i>
22	IIIA	Medial	IIIAB	Steinmann pin	6	-	

Op: operation, MRSA: methicillin-resistant *Staphylococcus aureus*, MRSE: methicillin-resistant *Staphylococcus epidermidis*, GPB: gram positive bacilli, I & D: Incision & drainage, B/G: Bone graft.

Supplementary Table 2. AOFAS ankle hindfoot scale

Variable	Point
Pain (40 points)	
None	40
Mild: occasional	30
Moderate: daily	20
Severe: almost always present	10
Function (50 points)	
Activity limitations, support requirement	
No limitations, no support	10
No limitation of daily activities, limitation of recreational activities, no support	7
Limited daily and recreational activities, cane	4
Severe limitations of daily and recreational activities, walker, crutches, wheel chair, brace	0
Maximum walking distance (blocks)	
Greater than 6	5
4~6	4
1~3	2
Less than 1	0
Walking surfaces	
No difficulty on any surface	5
Some difficulty on uneven terrain, stairs, inclines, ladders	3
Severe difficulty on uneven terrain, stairs, inclines, ladders	0
Gait abnormality	
None, slight	8
Obvious	4
Marked	0
Sagittal motion (flexion plus extension)	
Normal or mild restriction (30° or more)	8
Moderate restriction (15°~29°)	4
Severe restriction (less than 15°)	0
Hindfoot motion (inversion plus eversion)	
Normal or mild restriction (75%~100% normal)	6
Moderate restriction (25%~74% normal)	3
Severe restriction (less than 25% normal)	0
Ankle-hindfoot stability	
Stable	8
Definitely unstable	0
Alignment (10 points)	
Good: plantigrade foot, midfoot well aligned	15
Fair: plantigrade foot, some degree of midfoot malalignment observed, no symptoms	8
Poor: nonplantigrade foot, severe malalignment, symptoms	0
Total	100

AOFAS: American Orthopaedic Foot and Ankle Society.

This clinical rating system combines subjective scores of pain and function provided by the patient and objective scores based on the physician's physical examination (i.e., gait, sagittal motion, hindfoot motion, ankle-hindfoot stability and alignment of the ankle-hindfoot). The questionnaire includes nine items that can be divided into three subscales (pain, function, and alignment). Each of the nine items is scored, accumulating to a total score ranging from 0 points (indicating severe pain and impairment) to 100 points (no symptoms or impairment).