

TABLE E-1 Literature Review Regarding Perioperative Neurological Complications and Wound Infections in Patients Who Underwent Posterior Ankle or Hindfoot Arthroscopy

Reference	Study Type*	Procedure (No.)†	Neurological Complications	Infections
Present study	RS, MS	See Materials and Methods (189)	4 patients (2.1%) with plantar numbness (3 resolved) and 3 patients (1.6%) with sural nerve dysesthesia (2 resolved)	2 patients (1.1%) with wound infection
Abramowitz et al., 2003 ²	RS, SC	Excision of os trigonum (41)	8 patients (19.5%) with sural nerve sensory loss (4 temporary, 4 permanent)	1 patient (2.4%) with superficial wound infection
Allegra and Maffulli, 2010 ³	PS, SC	Posterior ankle impingement with removal of osseous or soft-tissue lesions (32)	None (0.0%)	Not specified
Amendola et al., 2007 ¹⁶	RS, SC	Subtalar arthrodesis (11)	None (0.0%)	None (0.0%)
Beimers et al., 2009 ¹⁷	RS, SC	Subtalar arthrodesis (3)	None (0.0%)	Not specified
Bevernage et al., 2010 ³⁰	RS, SC	Tibiototalcalcaneal arthrodesis (3)	None (0.0%)	None (0.0%)
Calder et al., 2010 ⁴	RS, SC	Tenolysis of FHL (5), excision of os trigonum (13), removal of osseous avulsion fragment from posterior ankle ligament complex (9)	None (0.0%)	None (0.0%)
Carro et al., 2007 ¹⁸	PS, SC	Subtalar arthrodesis (4)	None (0.0%)	Not specified
El Shazly et al., 2009 ⁵⁰	RS, SC	Subtalar arthrodesis (10)	None (0.0%)	Not specified
Galla and Lobenhoffer, 2011 ⁵	RS, SC	Excision of os trigonum (30)	2 patients (6.6%) with impaired sural nerve sensitivity	1 patient (3.3%) with superficial and 1 patient (3.3%) with deep wound infection
Glanzmann and Sanhueza-Hernandez,	PS, SC	Subtalar arthrodesis (41)	None (0.0%)	None (0.0%)

2007 ¹⁹				
Guo et al., 2010 ⁶	RS, SC	Excision of os trigonum (25)	1 patient (4.0%) with numbness of the medial part of the heel	None (0.0%)
Horibe et al., 2008 ⁷	PS, SC	Excision of os trigonum (11)	None (0.0%)	Not specified
				Not specified
Jerosch and Fadel, 2006 ⁸	RS, SC	Excision of os trigonum (10)	None (0.0%)	Not specified
Jerosch et al., 2007 ²⁵	RS, SC	Endoscopic calcaneoplasty (81)	None (0.0%)	Not specified
Lee et al., 2008 ²⁰	RS, SC	Subtalar arthrodesis (10)	None (0.0%)	None (0.0%)
Lee et al., 2008 ²²	RS, SC	Arthroscopic release for painful subtalar stiffness (17)	None (0.0%)	None (0.0%)
Lee et al., 2010 ²¹	RS, SC	Subtalar arthrodesis (16)	None (0.0%)	1 patient (6.3%) with deep infection
Marumoto and Ferkel, 1997 ⁵¹	RS, SC	Excision of os trigonum (11)	None (0.0%)	Not specified
Morag et al., 2003 ¹⁰	RS, SC	Excision of os trigonum (2), endoscopic calcaneoplasty (6), adhesiolysis of Achilles tendon (2)	None (0.0%)	None (0.0%)
Noguchi et al., 2010 ¹¹	RS, SC	Removal of osseous lesions (12) for treatment of posterior ankle impingement	1 patient (8.3%) with transient (4 weeks) sural neurapraxia	Not specified
Scholten et al., 2008 ¹²	RS, SC	Removal of osseous (42) or soft-tissue (13) lesions for treatment of posterior ankle impingement	1 patient (1.8%) with temporary loss of sensation of the posteromedial heel	None (0.0%)
van Dijk et al., 2001 ²⁶	RS, SC	Endoscopic calcaneoplasty (21)	None (0.0%)	None (0.0%)
Vega et al., 2008 ²⁴	RS, SC	Adhesiolysis of Achilles tendon (8)	None (0.0%)	Not specified
Wang et al., 2007 ³⁸	PS, SC	Not specified	None (0.0%)	None (0.0%)
Willits et al., 2008 ¹⁵	RS, SC	Excision of os trigonum (11), decompression of prominent posterior talar process (5), tenolysis of FHL (5), removal of loose body (1), OCD debridement (1)	Temporary numbness in the scar region in 5 patients, no permanent complications	None (0.0%)

*RS = retrospective study, MS = multi-center study, SC = single-center study, and PS = prospective study. †FHL = flexor hallucis longus, and OCD = osteochondritis dissecans.

TABLE E-2 Demographic Data and Outcomes for the Seven Patients with Neurological Complications*

Case	Sex	Age† (yr)	Primary Diagnosis	Primary Procedure	Complication	Treatment	Resolved
28	M	40	Subtalar OA	Subtalar fusion	Sural nerve dysesthesia	Observation	Yes
55	F	28.5	Ankle and subtalar OA	Ankle and subtalar debridement, PATL, external fixation for distraction	Plantar numbness	Release distraction	Partially
74	M	47	Ankle OA	Ankle% subtalar debridement, PATL	Plantar numbness	Tarsal tunnel release	Yes
86	F	38	Subtalar OA	Subtalar fusion	Sural nerve dysesthesia	Refused	No
113	M	52	Posterior ankle impingement, osteochondral lesion of talus	Ankle and OCD debridement	Plantar numbness	Observation	Yes
116	F	42	Subtalar OA	Subtalar debridement, tenolysis of FHL	Sural nerve dysesthesia	Neurontin	Yes
119	F	43	Subtalar coalition	Subtalar fusion, excision of os trigonom	Plantar numbness	Observation	Yes

*OA = osteoarthritis, PATL = percutaneous Achilles tendon lengthening, and FHL = flexor hallucis longus. †At the time of the surgery.

TABLE E-3 Time Distribution of Complications in the Study Group After Posterior Ankle and Hindfoot Arthroscopy

Years	No. of Procedures	No. of Complications (%)	P Value
2001-2003	35	2 (5.7)	
2004-2005	31	6 (19.4)	
2006-2007	71	4 (5.6)	
2008-2009	52	4 (7.7)	
Total	189	16 (8.6)	0.119