Wide-Awake No Tourniquet Technique in Foot And Ankle Surgery: A Case Series Study

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Background: The Wide-Awake Local Anesthesia No Tourniquet (WALANT) technique is well established in hand surgery; however, evidence supporting its use in foot and ankle surgery remains limited.

Purpose: To evaluate the safety, analgesic profile, early complications, and patient acceptance of WALANT in a heterogeneous cohort of foot and ankle procedures performed in a secondary-care hospital.

Methods: This single-center retrospective cohort study included consecutive patients who underwent forefoot, hindfoot, or lower-leg procedures under WALANT between 2019 and 2023. Patients receiving concomitant anesthesia, tourniquet use, lacking written informed consent, or with incomplete data were excluded. Demographic data, anesthesia details, surgical outcomes, complications, and patient-reported experience were collected from institutional records and supplemented by standardized telephone interviews. Pain was assessed using the Visual Analogue Scale (VAS) during anesthetic infiltration, intraoperatively, and within 48 hours postoperatively. Unplanned emergency department visits, clinic reviews, and hospital readmissions within a 6-week follow-up period were recorded. Descriptive statistics were used.

Results: Forty-three patients were included (28 women; mean age 56.9 ± 12.5 years). Mean VAS scores were 3.5 ± 2.2 during anesthetic injection, 0.7 ± 1.5 intraoperatively, and 3.2 ± 2.5 at 48 hours postoperatively. Mean operative time was 51.1 ± 27.1 minutes. Supplemental local anesthetic was required in 7 patients (16.3%); no cases required conversion or escalation of anesthesia. Six patients (14.0%) had unplanned emergency department visits or admissions within 6 weeks. Four patients (9.3%) developed wound infections, three treated with oral antibiotics and one requiring short hospital admission for intravenous antibiotics; no reoperations were necessary. Overall, 41 patients (95%) reported they would choose WALANT again.

Conclusion: In this secondary-care cohort, WALANT provided excellent intraoperative analgesia, acceptable early postoperative pain control, low short-term complication rates, and very high patient acceptance. Given the small, heterogeneous, and non-comparative nature of the cohort, prospective comparative studies - particularly in forefoot surgery - are warranted to compare WALANT with local nerve block and tourniquet use.

What this study adds: This study provides real-world evidence supporting the safety, analgesic effectiveness, and high patient acceptance of the WALANT technique across a heterogeneous range of foot and ankle procedures in a secondary-care hospital setting.

Potential impacts on research, practice or policy: These findings support the broader adoption of WALANT in foot and ankle surgery, particularly in ambulatory and resource-limited settings, and highlight the need for prospective comparative studies to define its role alongside regional anesthesia techniques.

Study Design: Single-centre retrospective cohort study

Level of Evidence: Level IV

Keywords: Foot, Ankle, Local anesthesia, No Tourniquet, Surgery, WALANT

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Introduction

WALANT is a well-known anesthetic technique for hand and wrist surgery, combining tumescent local anesthetic with epinephrine to provide analgesia and a blood-reduced field without a tourniquet. During the surgery patients remain fully awake, without tourniquet, sedation, nor need for other anesthetic techniques [1][2].

WALANT also eliminates the need for preoperative testing, fasting, tourniquet usage, or suspension of chronic medication. Patients undergoing WALANT typically experience a shorter recovery time, and this technique enables surgery on patients with multiple comorbidities who

may not be suitable candidates for regional or general anesthesia [1][3][4]. It also improves patient turnover and the transfer of less complex procedures to outpatient surgery. Intraoperatively, having a collaborative and non-sedated patient allows the surgeon to assess mobility and tension in repaired tendons, arthroplasties, and enhances patient education during the intra and post-operative stages [5][6][7][8].

Hospitals in low-resource settings often have limited infrastructure and staff, reducing access to foot and ankle surgery. WALANT is an alternative anesthetic approach that may help overcome some of these difficulties [5][9][10].

Several authors have suggested that these advantages could be transferred to foot and ankle surgery [5][10][11][12][13][14]. However, evidence in the lower limb is still less robust and mostly consists of small case series, with heterogeneous procedures and follow-up. Accordingly, the present study aims to describe outcomes, early complications and patient-reported acceptance of WALANT for foot and ankle procedures in a real-world secondary-hospital setting over a 5-year period.

Methods

Study design and ethics

This single-centre retrospective cohort includes all consecutive foot and ankle procedures performed under WALANT between 1 January 2019 and 31 December 2023. The study was approved by the Institutional Ethics Committee (approval UJ.2024.01.18830, 14 December 2023), and all patients provided written informed consent.

Eligibility and exclusions

Patients were eligible if they underwent a forefoot, hindfoot or lower-leg procedure using WALANT. Exclusion criteria were: (i) use of any concomitant anesthetic technique; (ii) tourniquet use; (iii) incomplete data; or (iv) absence of written informed consent. Of 69 procedures performed, 26 were excluded for one of these reasons, leaving 43 for analysis.

WALANT protocol

The injection technique followed the principles described by Donald H. Lalonde in Wide Awake Hand Surgery and Therapy Tips, 2nd ed., namely tumescent field infiltration with lidocaine, epinephrine and bicarbonate, adaptation of the field to the planned incision, and a latency of at least 30 minutes before incision [2]. For every 20 mL of solution we used 14 mL saline, 6 mL 2% lidocaine, 2 mL 8.4% sodium bicarbonate and 0.2 mL epinephrine 1 mg/mL (approximately 1:100,000). Total lidocaine dose remained < 7 mg/kg and never exceeded 300 mg. Given the heterogeneity, individual injection maps for each procedure are not detailed.

Intraoperative haemostasis

Haemostasis relied on epinephrine-induced vasoconstriction, 2-3 minutes of limb elevation before draping, and selective bipolar cautery when needed. No tourniquet was used.

Contraindications / cautions

WALANT was avoided in cases of severe peripheral arterial disease, critical limb ischemia, prior digital ischemia/Raynaud at the operative site, uncontrolled hyperthyroidism or known catecholamine hypersensitivity. In patients with vascular risk factors, dilute epinephrine was used and perfusion monitored. No ischemic complications occurred.

Postoperative analgesia

Post-discharge analgesia followed the institutional standards: paracetamol and/or NSAID as first-line, with rescue analgesia prescribed when required. Opioids were not routinely prescribed. Actual analgesic consumption was not systematically recorded, which represents a study limitation.

Follow-up

Patients were followed for 6 weeks postoperatively, chosen a priori because our primary outcome was early, procedure- or anesthesia-related unplanned health-care use (ED visits, unplanned consultations, readmissions), which in our practice occurs within this interval. Longer-term functional outcomes were not assessed.

Outcomes and data collection

Demographic data, diagnosis, procedure, laterality and surgical time were extracted from the institutional database. Missing pre- or post-operative information was supplemented through phone interviews. Pain was assessed with a 0–10 Visual Analogue Scale (VAS) at: (1) completion of infiltration; (2) intraoperatively; and (3) within 48 h postoperatively (telephone). Unplanned ED visits, unplanned clinic reviews and readmissions within 6 weeks were recorded. Patients were asked whether they would accept undergoing the same procedure again under WALANT. Previous anaesthetic experiences and preferred anesthetic method, along with the reasons behind their preference, were also documented.

Statistical analysis

Continuous variables are presented as mean ± SD and categorical variables as counts and percentages with 95% Wilson confidence intervals when informative. No a priori sample-size calculation was performed because all eligible cases during the study period were included. Analyses were descriptive.

Results

Participants and procedures

Between 2019 and 2023, 69 patients underwent foot and ankle surgery under WALANT; 26 were excluded (tourniquet or adjunct anesthesia, incomplete data or missing consent), leaving 43 patients for analysis. There were 28 women (61.1%); mean age 56.9 ± 12.5 years. The right side was operated in 26/43 (60.4%). Procedures covered a broad spectrum of forefoot, midfoot, hindfoot and ankle conditions including hallux valgus/rigidus, claw toe, central metatarsalgia, anterior ankle impingement, Haglund deformity, tarsal tunnel syndrome, talar chondral lesion, tibiotalar arthrosis and bimalleolar fracture, as detailed in **Table 1**.

Operative time

Mean operative time for the whole cohort was 51.1 ± 27.1 minutes. Across the different procedure categories (**Table 2**), operative time remained broadly comparable despite case heterogeneity**,** reflecting the wide variety of indications.

Table 1. Diagnosis and procedure description.

Diagnosis	Procedure	Quantity
Hallux Valgus	Chevron Osteotomy	17
	Chevron + Akin Osteotomy	5
Hallux Rigidus	Metatarsophalangeal arthrodesis	3
	Dorsal Cheilectomy	1
Claw toe	Weil Osteotomy	1
	Proximal Interphalangeal Arthrodesis	1
	Resection Arthroplasty	1
Central Metatarsalgia	Metatarsal Osteotomy	3
Anterior Ankle Impingement	Arthroscopical Anterior Osteotomy	2
Haglund deformity	Posterior Endoscopic Cheilectomy	2
Tarsal Tunnel Syndrome	Surgical Decompression	2
Talar Chondral Lesion	Microfracture procedure	2
Tibiotalar arthrosis	Arthroscopically assisted Tibiotalar Arthrodesis	2
Bimaleolar fracture	Osteosynthesis with lateral plate + medial cannulated screws	1

Table 2. Operative time by procedure category

Procedure category	n	Mean time (min)	SD	Median (IQR)
Forefoot	32	43.5	21.3	35.5 (27.8–56.5)
Hindfoot/ankle	10	71.9	33.6	68.5 (52.3–84.5)
Trauma	1	85.0	-	85 (-) *
Total	43	51.5	27.1	45 (30–65)

* IQR not reported due to small N

Pain outcomes

Mean VAS during infiltration was 3.5 ± 2.2; intraoperatively 0.7 ± 1.5; at 48 h 3.2 ± 2.5. At the 48-hour assessment, 9/43 (20.9%) reported no pain (VAS 0), 16/43 (37.2%) mild pain (VAS 1–3), 13/43 (30.2%) moderate pain (VAS 4–6) and 5/43 (11.6%) severe pain (VAS ≥7). The variability observed in 48-hour scores likely reflects differences in adherence to the prescribed non-opioid analgesic regimen. No patients were lost during the follow-up, and data was collected from all participants.

Complications and unplanned health-care use

Supplemental local anesthetic was required in 7/43 (16.3%; 95% CI 8.1–30.0); no conversion to another anesthetic technique or escalation was necessary. Within 6 weeks, 6/43 (14.0%) had an unplanned ED visit or admission. Four patients (9.3%) developed a wound infection: three were treated successfully with oral antibiotics and one required hospital admission for IV antibiotics. All recovered without reoperation. Most infections occurred in procedures involving percutaneous K-wires. Because only four infections were observed, no meaningful correlation could be established between infection and operative time or vascular risk factors.

Further unplanned occurrences included one patient presenting with increasing pain within 24 hours (without signs of compartment syndrome), treated successfully with IV analgesia, and one patient requiring a bandage change in the ED, without further complications.

Patient-reported outcomes

Overall, 41/43 (95.3%; 95% CI 84.5–98.7) stated they would accept undergoing WALANT again (**Table 3**). The two patients who would not repeat the technique reported either exacerbation of pre-existing low back pain or intraoperative anxiety and reduced comfort.

N	Gender	Diagnosis	Procedure	VAS WALANT	VAS intra op	VAS post op	Hospital readmission	Other anesthetic procedure?	Which anaesthesia?	Would undergo another procedure under WALANT?	Self-reported advantages of WALANT	Self-reported disadvantages of WALANT
1	M	HR	Metatarsophalangeal Arthrodesis	3	0	1	No	Yes	General	Yes	-	-
2	F	HV	Chevron Osteotomy	1	0	0	No	Yes	General	Yes	No nausea	-
3	F	Tarsal Tunnel Syndrome	Surgical Decompression	1	1	0	No	Yes	General	Yes	Less peri op pain + be able to communicate with the surgeon	-
4	F	Tarsal Tunnel Syndrome	Surgical Decompression	4	0	4	Bandage change after 24h	Yes	General	Yes	Be able to communicate with the surgeon	-
5	F	HV	Chevron Osteotomy	0	0	0	No	Yes	Epidural	Yes	No lack of motor control + lesser time to recover from the anaesthetic effects	-
6	F	HV	Chevron Osteotomy	1	0	0	No	Yes	General	Yes	Convenience of WALANT + No anxiety post op	-
7	F	HV	Chevron Osteotomy	6	0	9	Pain and edema 24h post op	Yes	General	Yes	-	-
8	F	HV	Chevron Osteotomy	5	0	5	No	Yes	General	Yes	-	-
9	F	HV	Chevron Osteotomy	3	3	5	No	Yes	Epidural	Yes	No lack of motor control + lesser time to recover from the anaesthetic effects	-
10	F	HR	Dorsal Cheilectomy	2	0	3	No	Yes	General	Yes	No nausea, sore throat nor cervicalgia	-
11	F	Talar Chondral Lesion	Microfracture procedure	3	0	2	No	Yes	General	Yes	Do not recall	Do not recall
12	F	Central Metatarsalgia	Metatarsal Osteotomy	8	0	6	Superficial wound infection	Yes	General	Yes	No nausea, vomiting nor confusion	-
13	F	Anterior Ankle Impingement	Arthroscopical anterior ostectomy	7	2	5	No	Yes	General	No	-	Exacerbation of low back pain
14	M	Bimaleolar fracture	Osteosynthesis with lateral plate + medial cannulated screws	4	0	9	No	Yes	General	Yes	Do not recall	-
15	M	HV	Chevron + Akin Osteotomy	2	0	7	No	Yes	General	Yes	Less peri op pain	-
16	M	HV	Chevron + Akin Osteotomy	2	4	2	No	Yes	Epidural	Yes	-	More peri op pain
17	M	Tibiotalar Arthrosis	Arthroscopically Assisted Tibiotalar Arthrodesis	2	0	0	No	Yes	General	Yes	-	-
18	F	HV	Chevron + Akin Osteotomy	3	0	0	No	Yes	General	Yes	Convenience of WALANT	-
19	M	HR	MTP Arthrodesis	5	0	2	No	Yes	General	Yes	Be able to communicate with the surgeon	-
20	F	HV	Chevron Osteotomy	5	0	0	No	No	-	Yes	-	-
21	M	Anterior Ankle Impingement	Arthroscopical anterior ostectomy	5	0	3	No	No	-	Yes	-	-
22	F	HV	Chevron Osteotomy	3	0	0	No	Yes	General	Yes	No nausea nor vomiting + be able to communicate with the surgeon	-
23	M	Central Metatarsalgia	Metatarsal Osteotomy	4	0	5	Superficial wound infection	Yes	General	Yes	Be able to communicate with the surgeon	-
24	F	HV	Chevron Osteotomy	7	0	4	No	Yes	Epidural	Yes	No lack of motor control + lesser time to recover from the anaesthetic effects	-
25	F	HV	Chevron Osteotomy	7	2	2	No	Yes	Epidural	Yes	No lack of motor control + lesser time to recover from the anaesthetic effects	-
26	M	Haglund Deformity	Posterior Endoscopic Cheilectomy	4	0	8	No	Yes	General	Yes	No confusion	-
27	F	HV	Chevron Osteotomy	4	0	5	No	Yes	General	Yes	No sleepiness	-
28	F	HV	Chevron Osteotomy	0	0	2	No	No	-	Yes	-	-
29	M	HV	Chevron Osteotomy	0	0	7	No	No	-	Yes	-	-
30	F	Claw Toe	Weil Osteotomy	7	2	2	No	Yes	Epidural	Yes	No lack of motor control + lesser time to recover from the anaesthetic effects	-
31	F	Talar Chondral Lesion	Microfracture procedure	3	0	2	Superficial wound infection	Yes	Epidural	Yes	Be able to communicate with the surgeon + faster recovery	-
32	M	HR	MTP Arthrodesis	1	0	0	Superficial wound infection	Yes	General	Yes	Convenience of WALANT	-
33	F	HV	Chevron Osteotomy	5	0	4	No	Yes	Epidural	No	No lack of motor control + lesser time to recover from the anaesthetic effects	More anxiety
34	F	HV	Chevron Osteotomy	6	2	1	No	Yes	General	Yes	No nausea, vomiting nor confusion	-
35	F	Claw toe	Proximal IP Arthrodesis	4	1	3	No	Yes	General	Yes	Be able to communicate with the surgeon	-

36	M	HV	Chevron + Akin Osteotomy	4	0	3	No	Yes	General	Yes	No nausea, vomiting nor confusion	-
37	F	Central Metatarsalgia	Metatarsal Osteotomy	4	0	4	No	Yes	General	Yes	Be able to communicate with the surgeon	-
38	M	Haglund Deformity	Posterior Endoscopic Cheilectomy	0	0	5	No	Yes	General	Yes	Be able to communicate with the surgeon	-
39	M	Tibiotalar Arthrosis	Arthroscopically Assisted Tibiotalar Arthrodesis	2	2	2	No	Yes	General	Yes	-	-
40	M	HV	Chevron + Akin Osteotomy	3	1	4	No	Yes	General	Yes	-	-
41	F	Claw toe	Resection Arthroplasty	1	0	3	No	Yes	General	Yes	No nausea nor vomiting + be able to communicate with the surgeon	-
42	F	HV	Chevron Osteotomy	6	8	3	No	No	-	Yes	-	Pain felt during procedure
43	F	HV	Chevron Osteotomy	4	0	4	No	Yes	General	Yes	No nausea, vomiting nor confusion	-

M- male; F - female; HR – Hallux rigidus; HV - Hallux valgus; MTP - Metatarsophalangeal; IP – Interphalangeal.

Table 3. Diagnosis, procedure, VAS score, hospital unscheduled readmission and subjective anaesthetic evaluation

Thirty patients had previously undergone general anesthesia. Among them, two did not recall their prior anesthetic experience sufficiently to compare, and seven perceived no advantages or disadvantages between the two techniques. Conversely, ten patients highlighted the absence of perioperative side effects—including nausea, vomiting, confusion, anxiety, and sore throat—as the main benefit of WALANT. Nine valued being awake and able to communicate with the surgical team, which provided reassurance, real-time feedback and intraoperative education. Two patients reported experiencing less perioperative pain under WALANT, while three cited its logistical convenience, such as same-day discharge and no need for preoperative testing.

Eight patients had prior epidural anesthesia. Seven described WALANT as preferable due to the absence of lower-limb motor block and quicker recovery, which they considered major drawbacks of epidural anesthesia. One patient reported experiencing less intraoperative pain with epidural anesthesia than with WALANT.

We do not claim superiority over local nerve block with tourniquet because this technique was not used in our cohort.

Discussion

In this single-centre, 5-year real-world cohort, WALANT was successfully applied to a broad range of foot and ankle procedures (**Table 1**), with very low intraoperative pain, acceptable early postoperative pain, and high patient acceptance. These findings align with previous lower-limb WALANT studies and expand the evidence from a secondary-care setting.

Injection discomfort (mean VAS 3.5) was higher than intraoperative pain, likely reflecting the early learning curve adherence to Lalonde's painless-injection principles is expected to reduce this further**.** We also observed that no anesthetic escalation or conversion was needed, even in more complex cases.

Mean VAS scores for infiltration, surgery, and 48-hour pain (3.51 ± 2.15, 0.65 ± 1.49 and 3.16 ± 2.51 respectively) and a mean surgical time of 51.05 minutes ± 27.11, suggest effective pain control during and shortly after surgery.

Reported injection pain was similar to McNeil et al. (VAS 3.49) but lower than Pamuk et al. (VAS 6.33), likely due to differences in injection protocols. These findings are also in line with other studies reporting low injection pain in WALANT foot and ankle procedures [5][11][12][15][16][17].

Orthopaedic surgery, especially involving bone procedures such as bone fusion and internal fixation or pinning, is considered a risk factor for a high incidence of postoperative pain with reported consequences on long term functional results and well-being of patients [18][19][20][21][22]. Given this high postoperative pain burden in foot and ankle orthopaedic procedures, various anesthetic techniques such as peripheral nerve blocks or spinal anesthesia have been used to improve analgesia; however, these may be associated with postoperative opioid side effects, need for conversion to general anesthesia, and the rebound pain phenomenon, defined as pain Numeric Rating Scale (NRS) higher than 7 points in the first 24-48 hours post-operatively, with a high prevalence rate when those techniques are utilized [23][24][25][26][27].

In our sample, the worst postoperative VAS score experienced by patients in the first 48 hours was utilized to assess the pain control and the incidence of rebound pain phenomenon. Despite the lack of a formal postoperative analgesic protocol and tools to control analgesic compliance of prescriptions by patients, we observed a mean VAS score 48h postoperatively of 3.16 ± 2.51, which is below the patient acceptable symptom state defined as the value beyond which patients consider themselves as well [18].

Although 11.63% of our patients reported worst postoperative VAS ≥ 7, this percentage appears lower than some reported rates in the literature for other anesthetic techniques, although indirect comparison across heterogeneous studies has inherent limitations [23][24][25][26][27]. This is especially important as postoperative pain control and side-effects of opioid consumption for pain control, play a central role in patient satisfaction in foot and ankle ambulatory surgery.

The short-term complication rates were low. Importantly, our 6-week follow-up was intentional: our primary aim was to capture early, surgery- or anesthesia-related unplanned health-care use (ED visits, unplanned clinic, readmissions), which in our practice occurs inside this time window**.** This design does not allow conclusions on long-term functional outcomes.

Regarding complications of procedures, four wound infections are reported, two of them in cases of metatarsal osteotomy for central metatarsalgia, one after metatarsophalangeal arthrodesis for hallux rigidus and one after microfracture procedure for talar chondral lesion. Three cases were successfully treated with oral antibiotic therapy, while the remaining required unscheduled hospital admission for intravenous antibiotic therapy. All cases recovered without the need of further surgery. However, it has been noted that complications in foot and ankle surgery are often more related to the procedure itself, the presence of percutaneous hardware, patient vascular status, and procedure duration than to the anesthetic technique. No other complications requiring treatment were reported.

Low complications rates were already reported in former studies, Bilgetekin et al did not report any complication in 31 patients with foot and ankle injuries treated under WALANT anesthesia [13]. Pamuk et al in a retrospective study with 34 patients who underwent a first metatarsal osteotomy for hallux valgus treatment, 15 under WALANT and 19 under traditional anesthesia, reported one case of superficial infection in each group, showing similar and low complication rates [12].

When analyzing the subjective perspective by patients on differences between WALANT as opposed to traditional anesthesia methods for foot and ankle surgical procedures, our results showed a positive opinion from patients, as 95% expressed their willingness to undergo another procedure under WALANT, which may reflect a favorable overall patient experience.

Key advantages highlighted by patients were the absence of perioperative side effects associated with WALANT. Nausea, vomiting, transient confusion or memory loss, dizziness, urinary retention and sore throat are common side effects of general anesthesia, which were not experienced by patients who opted for WALANT [28]. Patients who had undergone previous epidural anesthesia, highlighted issues related to motor control of the lower limbs and a longer recovery time compared to WALANT as main advantages of this technique.

This finding is consistent with previous studies reporting high patient satisfaction and low adverse-event rates with WALANT in foot and ankle surgery[3][15][29][30].

Comparison with other anesthetic techniques must be cautious. Peripheral nerve blocks within multimodal regimens can provide very good analgesia beyond 48–72 h and opioids can be minimized; rebound pain can also be mitigated [31]. Because our series is non-comparative and follow-up was limited to 48 h for pain, we cannot claim superiority of WALANT over regional anesthesia.

Seven patients (16.3%) in our cohort required anesthetic solution reinforcement during surgery. Similar results were reported in the literature by Li YS et al. where 2 out of 13 patients needed anesthetic reinforcement and by McNeil et al as in 3 patients WALANT failed to control pain during intervention. 5,13 We do not consider this need as a major issue, as it is part of the learning curve of injection protocols and all these patients reported procedural VAS <3.

From an organisational/economic perspective, WALANT allowed us to perform these procedures without tourniquet, without sedation or anaesthetist-led anesthesia and in an ambulatory pathway, which may reduce per-case costs and improve operating-room turnover, although we did not perform a formal cost analysis.

Limitations of this study include the retrospective design, potential selection bias (only cases deemed suitable for WALANT by the surgeons were included); small sample size, procedural heterogeneity; short 6-week follow-up; and possible surgeon or learning-curve effects. Additionally, the absence of a control group makes it difficult to determine the specific advantages and disadvantages of WALANT compared to other anesthetic approaches. The reliance on subjective measures, such as VAS scores and patient questionnaires, introduces potential biases and variability in the results. Because all eligible cases over a 5-year period were included, no a priori power calculation was possible. This study should therefore be considered hypothesis-generating.

Conclusion

WALANT appears to be a safe and acceptable anesthetic option for a broad range of foot and ankle procedures in a secondary-care setting, providing excellent intraoperative analgesia, acceptable early postoperative pain, and high patient acceptance. Given the small, heterogeneous, and non-comparative nature of this cohort, future prospective, preferably randomized, studies directly comparing WALANT with local nerve block plus tourniquet -particularly for forefoot surgery- will be essential to determine the comparative benefits and limitations of WALANT in routine foot and ankle surgery.

Abbreviations

WALANT - Wide-Awake Local Anesthesia No Tourniquet
VAS - Visual Analog Scale
SD - Standard Deviation
ED - Emergency Department
NRS - Numeric Rating Scale

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Conflict of interest

All authors report no relationships that could be construed as a conflict of interest. All authors take responsibility for all aspects of the reliability and freedom from bias of the data presented and their discussed interpretation.

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