

“Wide-Awake” Foot and Ankle Surgery: A Retrospective Analysis

A. Luke MacNeill

University of New Brunswick
Saint John, NB, Canada
luke.macneill@unb.ca



D. Joshua Mayich

Horizon Health Network
Saint John, NB, Canada
joshua.mayich@horizonnb.ca



Disclosure

NO CONFLICT TO DISCLOSE

“Wide-Awake” Foot and Ankle Surgery: A Retrospective Analysis
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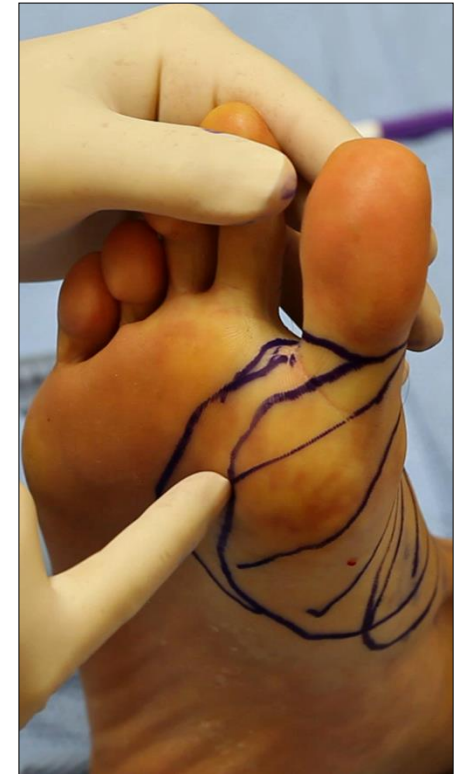
My disclosure is in the Final AOFAS Mobile App.

I have no potential conflicts with this presentation.

The “Wide-Awake” Approach

The “wide-awake” approach to orthopaedic foot and ankle surgery:

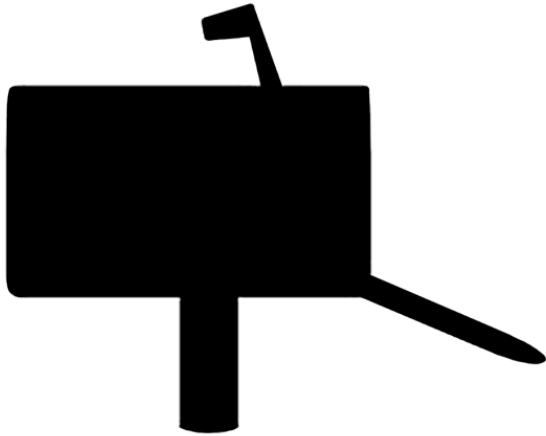
- Adapted from wide-awake hand surgery.¹⁻³
- Patient anesthesia achieved with a surgeon-administered local anesthetic.
- Epinephrine provides vasoconstriction and hemostasis at the operative site.
- No tourniquet. No sedation. No regional or general anesthesia.
- The patient is fully conscious during the operation.



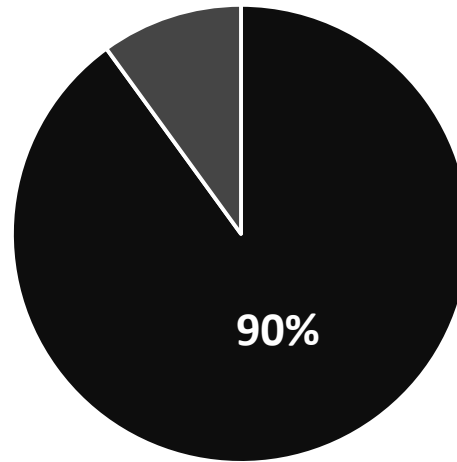
Local Anesthetic Mixture

Procedure Type	Sample Case	Saline Bag Size	Local Anesthesia Dosage	Sodium Bicarb
Small	Hammer toe correction Hallux valgus procedure First MTP fusion	50cc	Lidocaine 1% + 1:100 000 epi – 10mL Bupivacaine 0.25% (no additive) – 5mL	1.5mL
Medium	Hoffmann procedure (RA) Talonavicular fusion Midfoot fusion	100cc	Lidocaine 1% + 1:100 000 epi – 15mL Bupivacaine 0.25% (no additive) – 10mL	2.5mL
Large	Ankle fracture ORIF Bridle procedure	2 x 100cc	Lidocaine 1% + 1:100 000 epi – 30mL Bupivacaine 0.25% (no additive) – 10mL	4mL

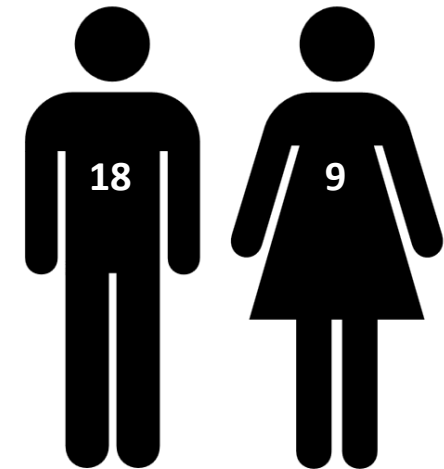
Retrospective Patient Survey: Method



Patient pain, anxiety, and satisfaction assessed via mail 2-14 months postop
($M = 193.11$ days, $SD = 100.52$)



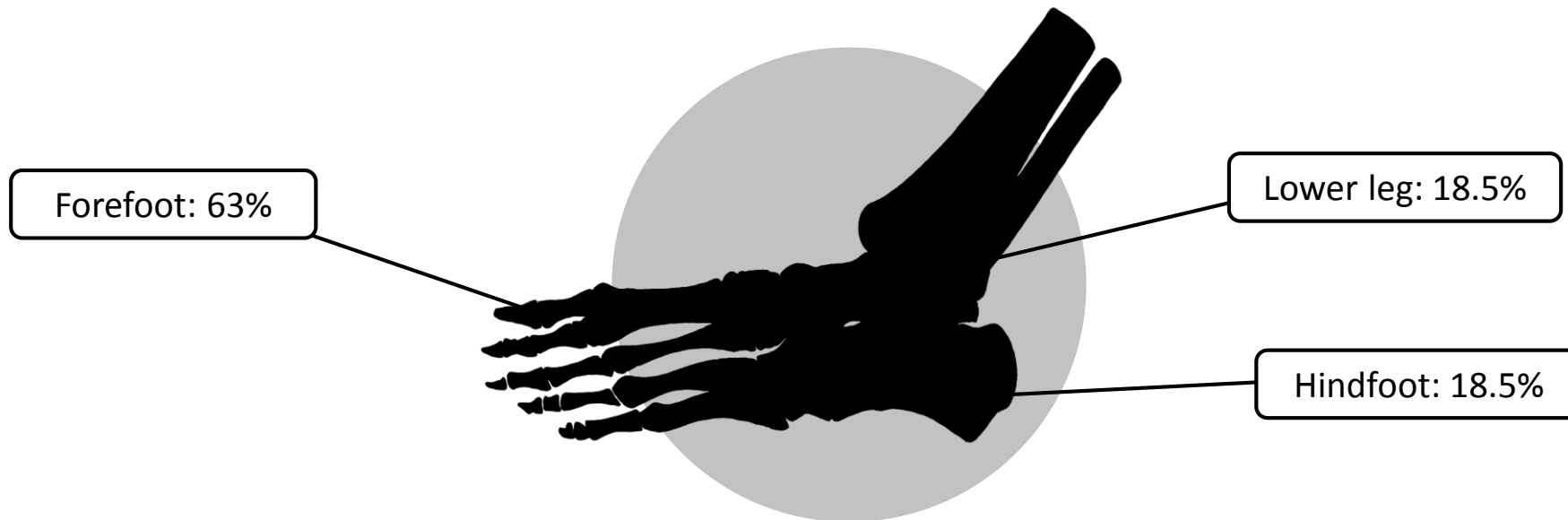
90% response rate
(27 of 30 patients)



Mean age = 57 years
 $SD = 13$, range = 27-77

Retrospective Patient Survey: Method

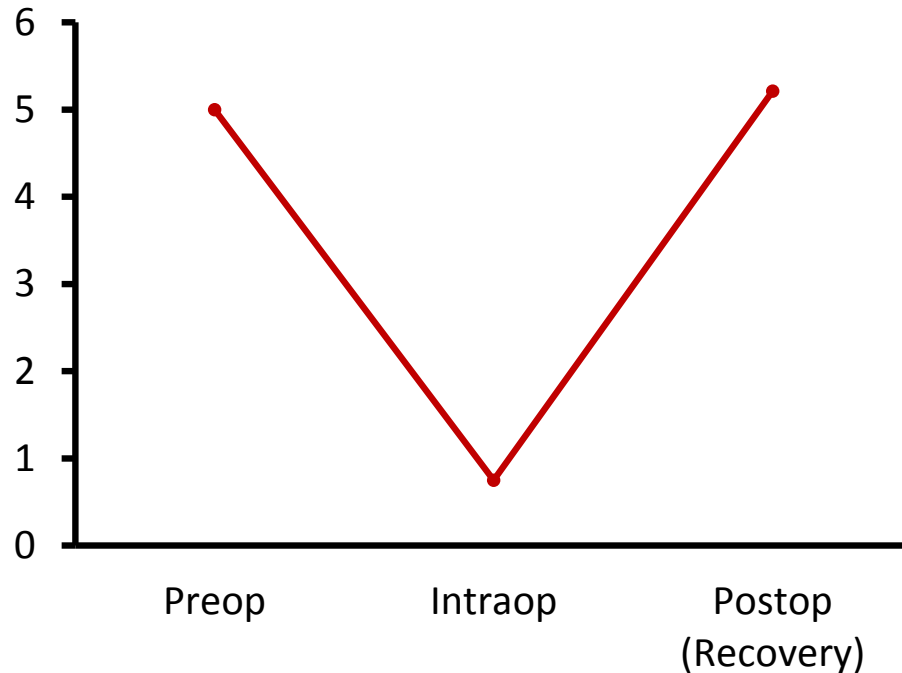
Procedures performed:



* 3 patients receiving hindfoot hardware removal were statistical outliers (data presented in Conclusion).

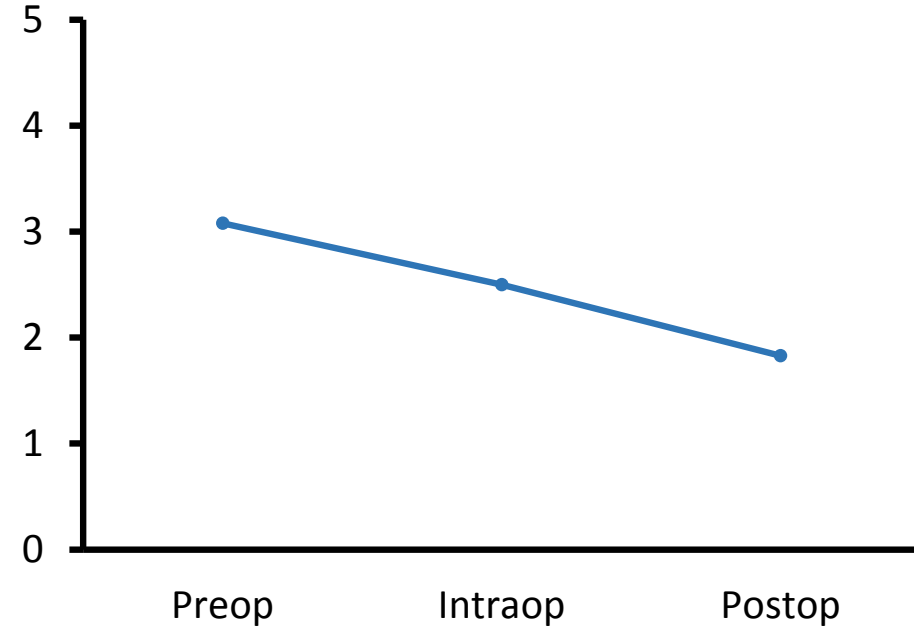
Retrospective Patient Survey: Results

Patient Pain (0-10)



$$F(2, 46) = 30.11, p < .001, \eta_p^2 = .57$$

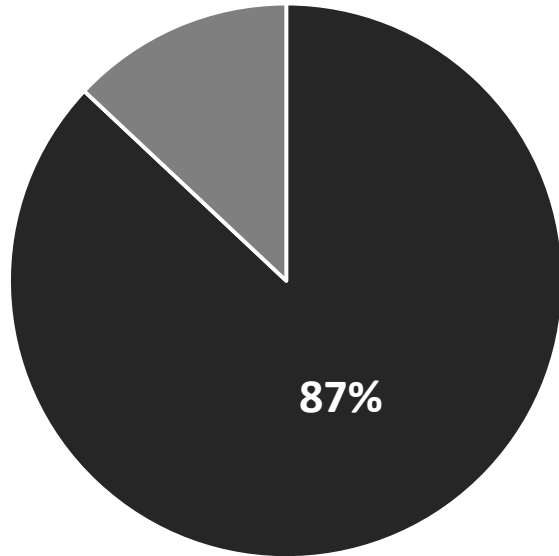
Patient Anxiety (0-10)



$$F(2, 46) = 6.06, p = .005, \eta_p^2 = .21$$

Retrospective Patient Survey: Results

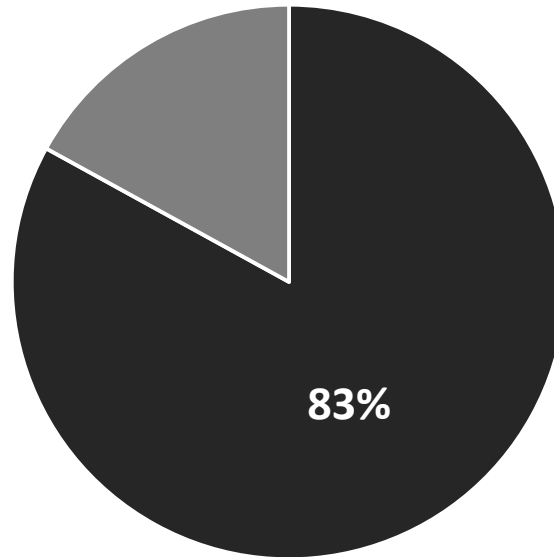
Future anesthetic preference?



■ Wide-Awake ■ Sedation ■ Asleep (0%)

$\chi^2 (1, N = 23) = 12.57, p < .001$

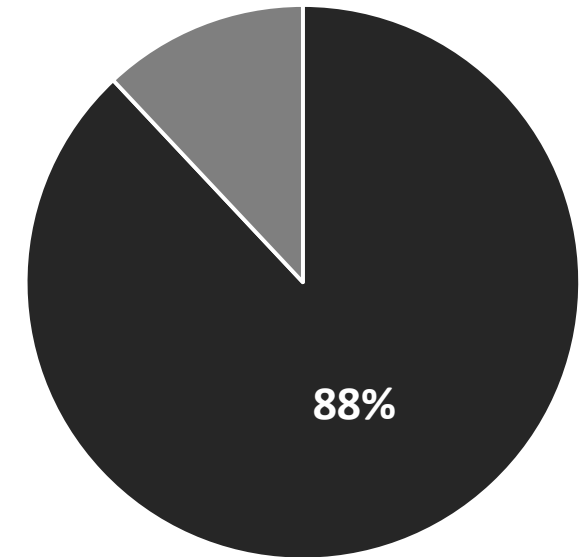
Was wide-awake surgery better than expectations?



■ Better ■ The Same ■ Worse (0%)

$\chi^2 (1, N = 24) = 10.67, p = .001$

Would you recommend wide-awake surgery?



■ Yes ■ Unsure ■ No (0%)

$\chi^2 (1, N = 24) = 13.50, p < .001$

Concluding Points

1

- Wide-awake patients report **little pain and anxiety**, and **high levels of operative satisfaction**.
- Replicates feedback from wide-awake hand surgery.⁴⁻⁶
- **Cost and safety benefits**, and a valuable opportunity to **interact with an unsedated patient**.

2

- Three patients undergoing **hindfoot hardware removal** were statistical outliers.
- Reported greater intraoperative anxiety ($M = 5.67$) and pain ($M = 7.33$).
- Scar tissue from previous trauma and surgery likely prevented diffusion of anesthetic mixture.

3

- Epinephrine not recommended in patients with **PVD** or **poorly controlled type 2 diabetes**.
- **Avoid epinephrine in these cases** and re-dose the local anesthetic to 4.5 mg/kg (2mg/lb).
- If necessary, **phentolamine rescue** will reverse the effects of epinephrine vasoconstriction.

Concluding Points

ACKNOWLEDGEMENT

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This research would not be possible without his support and assistance.



References

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