

# A Randomized Control Trial Comparing Trigger Finger Release Under Digital Anesthesia With And Without Adrenaline

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## INTRODUCTION:

Trigger finger release utilizing wide awake local anesthesia no tourniquet (WALANT) usage in extremity surgery is not widely used in our setting due to its potential necrosis. We study surgical field visibility in trigger finger release, onset and duration of anesthesia, pain score, duration of surgery and potential side effects of WALANT.

## MATERIALS & METHODS:

Eighty-six consented patients who were scheduled for trigger finger release between July 2016 to December 2017, were randomized into control (1% lignocaine and 8.4% sodium bicarbonate with arm tourniquet; given 10 minutes prior procedure) and intervention group (1% lignocaine, 1:100 000 of adrenaline, and 8.4% sodium bicarbonate; given 30minutes prior procedure) with total of 4mls injection were given over A1 pulley respectively. The onset of anesthesia and pain score upon injection of the first 1ml were recorded. After the procedure, the surgeon was asked for hemostasis score (1-10: 10 being profuse bleeding). Duration of surgery was recorded. Patients were contacted for the return of sensation.

## RESULTS:

Hemostasis score was grouped into visibility score as 1-3: good, 4-6: moderate, 7-10: poor. 74% (n=32) from intervention while only 44% (n=19) from control group scored good surgical field visibility ( $p<0.05$ ). Duration of anesthesia was longer in the intervention group with 2.77 hours differences ( $p<0.05$ ). We found no difference in pain score upon injection, the onset of anesthesia and duration of surgery. No digital necrosis recorded.



Figure 1: Graph showing 72% (n=32) of good visibility in the intervention group.

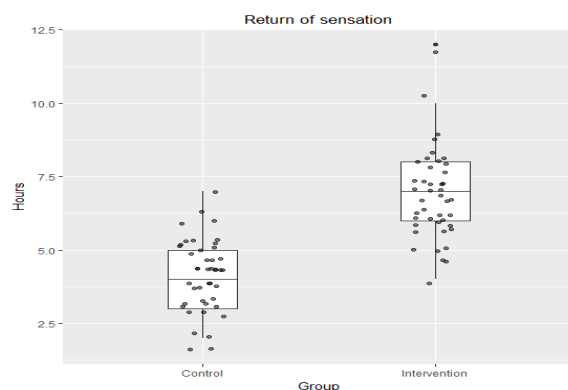


Figure 2: Box-and-whiskers plot showing mean of 2.77hours difference in duration of anesthesia between groups

## DISCUSSIONS:

Tolerance of arm tourniquet reported was between 10 to 26 minutes [1]. Our study showed a significant advantage in WALANT group as it provides a better surgical visual field in the intervention group. Mean of 6.86 hours anesthesia provided better postoperative analgesia.

## CONCLUSION:

WALANT provides better surgical field hemostasis and postoperative pain relief.

## REFERENCES:

1. Maury AC, Roy WS. A prospective, randomized, controlled trial of forearm versus