

# Duration and complication rate of carpal tunnel and trigger finger release by surgeon in training under "Wide Awake Local Anesthesia No Tourniquet" anesthesia or intra venous regional anesthesia.

Olivia Zbinden, Estoppey Daniel, Meszaros Thomas

Department of Orthopaedic Surgery, Hôpital Cantonal Fribourg, Fribourg

## Introduction

Wide Awake Local Anesthesia No Tourniquet (WALANT) is an alternative to more frequently used intravenous regional anesthesia (IVRA) in hand surgery. Adrenaline mixed with locally injected anesthetics reduces bleeding during the procedure.

Aim of the study:

1. to compare duration of carpal tunnel release (CTR) and trigger finger release (TFR) under WALANT and intravenous regional anesthesia.
2. to compare complication rate.

## Method

This is a retrospective study comparing surgery duration of CTR and TFR under WALANT or IVRA by surgeon in training from skin incision to wound closure. Operations involving other simultaneous procedures were excluded. Patients were followed up at 2, 6 and 12 weeks post-operatively. Complications were investigated : wound dehiscence, infection complication, neurological lesion and incomplete neurolysis.

## Results

Carpal tunnel release	IVRA (N=18)	WALANT (N=16)	P-value
Surgical time	14.6 min	20.1 min	< 0.05
Trigger finger release	IVRA (N=18)	WALANT (N=16)	P-value
Surgical time	16.0 min	15.8 min	0.49

There were no complications in either group.



The white area delimiting the vasoconstriction area and the limit of the anesthesia during WALANT (carpal tunnel release).

## Conclusion

Compared to intravenous regional anesthesia the surgery duration under WALANT is significantly longer for CTR but unchanged for TFR, while not increasing the complication rate. In conclusion, surgery under WALANT is likely to lengthen the operating time without increasing the risk for the patient. For this reason, this technique should not be a hindrance to teaching.