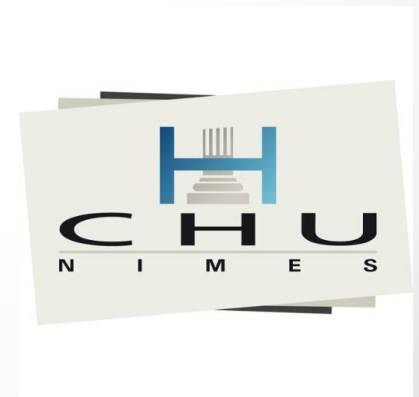




Influence of the WALANT anesthesia and office surgery about the satisfaction and recovery after carpal tunnel release.

L. Moscato, R. Coulomb, P. Kouyoumdjian, O. Mares



Hypothese

Carpal tunnel syndrome care path:

Ultrasound guided surgery, WALANT, office surgery

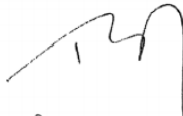
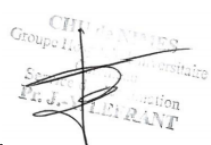
VS

Endoscopic release, Mac anesthesia, Day surgery

?

Study Design

- **One center:** CHU Carémeau, Nîmes
- **Observational, continuous**
- **Retrospective:** january 2018 to february 2019
- **Phone assesement** by an independant operator (from 12/18 to 04/19)
- Informed consent, approved by an independant ethics comittee (**IRB**)
- **Exclusion criteria:**
 - Professional disease
 - Work related accident
 - Pregnancy related CTS

AVIS de l'IRB	<input checked="" type="checkbox"/> Favorable	<input type="checkbox"/> Défavorable
	<input type="checkbox"/> Non compétent	<input type="checkbox"/> Différé
Document fourni : Diaporama de présentation du protocole, lettre d'information		
Code de l'étude attribué par l'IRB : 19.10.05		
 R. LAVABRE BERTRAND		
CHU de Nîmes Service de Cytopathologie Clinique Pr. Thierry LAVABRE-BERTRAND N°RPPS : 100032141 02		
Nîmes le 17/10/2019		

Materials and Methods

- Comparison of **3 groups**:
 - Office surgery Walant and ultrasound guided carpal tunnel release
 - Day surgery Walant and ultrasound guided carpal tunnel release
 - Day surgery Mac anesthesia and endoscopic release (“Standard”)
- **30 patients each**
- **Groups comparable for:**
 - Sexe
 - Age
 - Past medical history

Materials and Methods

- Endoscopic, Day surgery path care:
 - Mac anesthesia (axillary brachial plexus block)
 - Upper extremity drape
 - Operating room
 - Tourniquet placed on the arm
 - On an empty stomach, stop of blood thinners



Materials and Methods

- **Office surgery**

- External care room (**CLIN approved**)
- Limited surgical drape
- Strict asepsis
- Surgeon + specifically trained nurse
- The patient can eat and drink
- no change of diet or medication



- **WALANT**

- Practiced by the surgeon, 15 min before CTR
- 50 % Saline solution / 50% lidocaine (<2mg/kg) + epinephrine 1%
- No monitoring or IV (SFAR 2020)
- No tourniquet



Evaluation Criteria

- **Primary criteria: Satisfaction (/10)**
 - Global satisfaction for surgery
 - Satisfaction about organisation
 - Satisfaction about anesthesia achievement
 - Anesthesia quality satisfaction
- **Secondary criteria: Recovery delay (days)**
 - Daily living
 - Sports and Hobbies
 - Professional activities
- **Complications:** vascular, neurological, septic



Clinical Results

- Similar results for **acroparesthetic syndrome disappearance** ($p=0.8401$)
- No increase in the risk of **vascular or neurological complication** (0 reported case)
- No increase in the risk of **infection** ($p = 0.3631$)
- No difference for **residual pillar pain**:
 - at rest 0.51 ± 1.44 (0-7) ($p=0.0413$)
 - at work 1.10 ± 1.83 (0-6) ($p=0.0933$)

Results: Satisfaction

Care path « Office » VS « Standard »

9,87 vs 8,60 (+1,27) ($p < 0.0001$)

- US guided surgery vs Endoscopic 9,60 vs 9,37 **(+0,77)**
- Walant vs MAC 9,93 vs 9,40 **(+0,53)**
- « Office » vs Day surgery 9,87 vs 9,37 **(+0,5)**

Results: Recovery delay

- Shortening of the recovery delays for the « office group » vs « Standard group »
 - Daily living (**-7d**) ($p < 0.0001$)
 - Sports and hobbies (**-12d**) ($p = 0.0113$)
- No significant difference about the time to return to professional activities (but trend for « office » group)

Discussion: Care Path Optimisation

- US guided surgery + Walant allow carpal tunnel release in « **office surgery** »
- Care path Optimisation for patients
- Increases proximity with the surgeon and so empathy relationship

Menendez ME, Chen NC, Mudgal CS, Jupiter JB, Ring D. Physician Empathy as a Driver of Hand Surgery Patient Satisfaction. J Hand Surg Am. 2015 Sep

- Lowers pre and peroperative anxiety by reducing the number of interlocutors

Smith WR1, Wera J1, Ramsey FV1, Takei R2, Gallant G2, Liss F2, Beredjikian P2, Kwok M2 Patient Satisfaction in the Preoperative Period: Preparing for Hand Surgery. Hand (NY) 2018 Mar



Conclusion

- **Care path Optimisation** : US guided surgery, Walant, « Office surgery »
 - Increases **satisfaction**
 - Decreases **recovery delay**
 - No increase of complication risks
- Similar clinical results than « gold standard »



Thank you for your attention.

