**PERCUTANEOUS TRIGGER FINGER** RELEASE UNDER EMLA **ANAESTHESIA: TECHNIQUE AND** RESULTS Christos K. Yiannakopoulos, Peter J. Fules Mayday University Hospital London, UK



To evaluate the effectiveness of transdermal anaesthesia (EMLA) in percutaneous release of the A1 pulley





Used for • IV & IA cannulation • Wound debridement • Split thickness skin grafting









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# The simplest and most common tendon problem

## Trigger Finger



## **Operative Treatment of Trigger Finger**

## Release of A1 Pulley

### Methods:

Open
 Percutaneous



**Operative Treatment of Trigger Finger** 

Open Release

Extensive experience available, Rheumatoid Arthritis, More traumatic, Local anaesthesia risks, Wound complications

Percutaneous Release

Successful, painless, no wound complications, cosmetically superior, extensive surgical experience needed

Patients -Methods

Stenosing Tenosynovitis (Trigger Finger)

in 28 patients (34 fingers)

treated with

Percutaneous Release of the A1 Annular Pulley

Patients -Methods

The mean age of the patients was 63±9 years and most of them were women (22, 78.5%)

Indications of Surgery Chronically locked fingers Failure of conservative treatment (splint, steroids)

No Rheumatoid Arthritis





Transdermal anaesthesia using an eutectic mixture of lidocaine and prilocaine (EMLA®) applied transcutaneously 120 minutes

prior to the operation



### Application Method (Demonstration) 1. Five mg at area of operation (e.g A1 pulley). Do Not Rub In

2. Adhesive Film



#### **3.** Two-hour waiting time







Demonstration of locking
 Landmark drawing



3. Percutaneous release with a 18g needle mounted on a 3-ml syringe

Outcome Measures

Average follow-up 7 months (5-11)

 Pain experience during the operation was assessed using a 100-point Visual Analogue Pain Scale (VAPS)
 All patients rated the level of anaesthesia during the procedure on a four point scale (excellent, good,

insufficient, painful).

Potential **Complications** Infection Scar Stiffness Algodystrophy Nerve Injury Failure to release A1 pulley



Successful release in all cases No significant complication Average Operating time 3.5 minutes All patients tolerated the procedure comfortably No local skin problems

The patient's perception of the adeguacy of the anaesthetic regimen. No patient regarded the anaesthesia being poor Most of the patients were satisfied with the anaesthesia



Pain Perception During the Operation

The mean VAS score, representing the level of pain during the operation was 4.3 (1.9-5)



Painless
Effective
Easy to use and apply
Virtually no complications
Extremely rare side effects (skin blanching)



- Not effective for most injections unless very superficial
- Expensive
  - 1-2 hours to act
    - Preplanning is necessary
    - Not useful for emergencies or for wound closure.



Percutaneous trigger finger release can be safely performed as an office procedure with the use of EMLA avoiding the use of injectable local anaesthetics. The procedure is effective with low complication rate having excellent long-term results.