PERCUTANEOUS TRIGGER FINGER RELEASE UNDER EMLA ANAESTHESIA: TECHNIQUE AND RESULTS

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Purpose

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
The simplest and most common tendon problem
Operative Treatment of Trigger Finger

Goal:

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
The mean age of the patients was $63\pm9$ 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
Operation

1. Demonstration of locking

2. Landmark drawing

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

- 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 adequacy of the anaesthetic regimen.

✓ No patient regarded the anaesthesia being poor

✓ Most of the patients were satisfied with the anaesthesia
The patient’s perception of the adequacy of the anaesthetic regimen.
The mean VAS score, representing the level of pain during the operation was 4.3 (1.9-5)
EMLA Advantages

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

- 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 a low complication rate, having excellent long-term results.
Thank You