Penile anesthesia

INTRODUCTION

Regional anesthesia of the penis is a simple and effective way to provide anesthesia for potentially painful procedures such as those done to address priapism, paraphymosis, or laceration repair. Two main blocks are done: Dorsal penile block and ring block. The dorsal penile block provides anesthesia to the dorsum of the penis, foreskin, and glans penis, and less reliably to the ventral shaft. The ring block provides anesthesia circumferentially to the penis distal to the block, which provides better anesthesia for injuries or procedures on the ventral aspect of the penis.

GOALS OF THE PROCEDURE

- Obtain reliable anesthesia to the penis for painful procedures or injuries

INDICATIONS

- Laceration repair
- Foreign body removal (from subcutaneous tissue)
- Dorsal penile slit
- Priapism aspiration, irrigation, and shunt procedures
- Paraphimosis reduction
- Release of entrapped foreskin (ie zipper injury)

GENERAL CONTRAINDICATIONS

- Allergy to anesthetic
- Overlying infection

COMPLICATIONS:

- Nerve injury
- Intravascular injection
- Injury to neighboring structures
- Hematoma
- Systemic toxicity

EQUIPMENT

- 1% lidocaine without epi
- Chloroprep or betadine
- 6cc syringe
- 18 gauge needle
- 27 gauge needle
- 2x2 gauze squares
- PPE (standard gloves, eye protection)

ANATOMY

**Dorsal penile block**
The dorsal penile nerve is a branch of the pudendal nerve and passes under the pubic symphysis and onto the dorsum of the penis. It is a paired nerve that runs just laterally to the dorsal penile artery and deep dorsal vein on either side, within Buck’s fascia and superficial to the tunica albuginea. The block is generally done at the base of the penis at 10 and 2 o-clock.

**Ring block**
In a ring block, lidocaine is injected subcutaneously in a circumferential ring around the penile shaft. Location depends on at which level anesthesia is needed distally. Ventrally, the urethra runs through the corpus spongiosum and care should be taken to remain superficial to this structure.
STEPS
1. Position the patient supine with genitalia exposed
2. Clean the base of the penis and penile shaft
3. Draw up 1% lidocaine in the 6cc syringe with the 18g needle

**Dorsal penile block:**
1. With the 27g needle, enter the base of the penis perpendicularly at the 2 o’clock position and direct the needle slightly medially
2. Advance until you feel a slight loss of resistance, indicating that you are through Buck’s fascia
3. Aspirate to ensure you are not in a vessel
   a. Alternatively, if you’ve gone too far you may be in corpus cavernosum and would also aspirate blood
4. Inject 2cc of lidocaine
5. Remove, and repeat at the 10 o’clock position

Alternatively, you can enter the penis at a shallow angle approximately 2cm distally to the base of the penis, angle directly back to the symphysis pubis, and advance superficially through the subcutaneous tissue and Buck’s fascia as this may give you more control over the needle location
**Ring block:**
1. With the 27g needle, inject subcutaneously around the shaft of the penis in a circumferential fashion

**VIDEO**
Dorsal penile block for infant circumcision: [http://vimeo.com/33647051](http://vimeo.com/33647051)

**DEEP DIVE**
- **Further Reading**
  - Roberts & Hedges’ Clinical Procedures in EM. 6th edition. Pg 1129