USE OF CHLOROPROCAINE EPIDURAL FOR WOMEN WITH LIDOCAINE ALLERGY

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INTRODUCTION

- Local anesthetics (LAs) are a frequently used, key component of neuraxial analgesia/anesthesia for both vaginal and cesarean delivery.
- Amino esters and amino amides compose the two major groups of LAs with different structural makeup and metabolism

- Common **Amides** used for obstetric neuraxial block:
  - Lidocaine
  - Bupivacaine
  - Ropivacaine
- Common **Ester** used for obstetric neuraxial block:
  - Chloroprocaine (CPC)

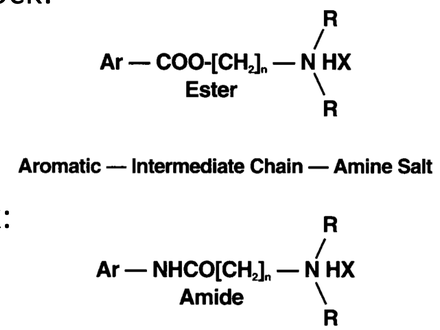

Figure 1. General structure pattern of local anesthetics.

- **Anaphylaxis in pregnancy**:
  - Most commonly due to **medication administration**
  - **Cesarean delivery** is most frequently reported event associated with anaphylaxis in pregnancy

IgE Mediated Anaphylaxis to Local Anesthetics	Ester Reaction Due To	Amide Reaction Due To
<1%	PABA	Methylparaben propylparaben preservatives

REFERENCES

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CASE 1

- 19-year-old G1P0 presented for scheduled Cesarean delivery due to fetal anomalies
- Prior reaction to lidocaine during a dental procedure concerning for anaphylaxis
- Desired regional for Cesarean delivery

CASE 2

- 29-year-old G3P2 presented in labor requesting epidural
- Two prior vaginal deliveries without epidural
  - With last delivery had anaphylactic reaction during laceration repair
  - Chart consistently reported lidocaine allergy
- Desired epidural for labor

Neither patient had allergy testing prior to presentation

NEURAXIAL TECHNIQUE

- Combined spinal epidural performed with 3% 2-CPC for skin wheel and spinal dose
  - Subsequent epidural re-dose of 3% 2-CPC to maintain adequate surgical level

- Dural puncture epidural performed using 3% 2-CPC for skin wheel and dosed with fentanyl and CPC
  - Hand bolused with CPC ~20 minutes and then fentanyl infusion ran continuously through catheter until delivery

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OUTCOME

- Adequate analgesia and anesthesia established throughout labor and delivery
- Both patients remained stable throughout neuraxial block without signs of allergic reaction to medications
- Followed up the next day without issues
- Discharged home within expected timeline for Cesarean and vaginal delivery

DISCUSSION

- Neuraxial blockade is a key component of labor anesthesia and analgesia
- True allergic reaction to LA is rare but serious
- Communication with our obstetric colleagues is key
  - Early referral to allergist prior to presentation for delivery
- Understanding components of LA and appropriate alternatives
  - Ester versus Amide LA
  - Onset and duration of LA

REFERENCES