

Topical Anesthetic Allergy Reference

Background:

True hypersensitivity to local anesthetics (LAs) are rare and most effects allegedly described as allergic reactions may be attributed to other factors such as acute toxicity, psychomotor reactions, the pharmacologic properties of the LAs, or due to parabens, a preservative in some multi-dose vials of local anesthetics.

Allergic reactions primarily have been reported with local anesthetics that have an ester type structure. Methylparaben, a preservative agent used in many of the local anesthetic solutions (ester and amide agents) may also be a source of the hypersensitivity reactions since it is structurally similar to the ester type structure of the ester class of anesthetics. Therefore, if a patient is truly allergic to the ester sub-class, a preservative free (methylparaben free) amide anesthetic would be an appropriate alternative.

ESTERS	AMIDES
Benzocaine	Lidocaine (<i>Xylocaine</i>)
Procaine (<i>Novocain</i>)	Mepivacaine (<i>Carbocaine, Polocaine</i>)
Tetracaine	Prilocaine
Chloroprocaine (<i>Nesacaine</i>)	Bupivacaine (<i>Marcaine</i>)
Propoxycaine	Phenocaine
Cocaine	Dibucane
	Etidocaine

Recommended Alternatives:

- ☞ If amide allergy (lidocaine, mepivacaine) ⇒ Use: *Nesacaine* (PF chloroprocaine)
- ☞ If ester allergy (*Nesacaine, Novocain*) ⇒ Use: lidocaine (PF) or mepivacaine (PF)

Conclusion:

- 1.) Allergic reactions can usually be avoided by giving the amide type of local anesthetic (without preservative) to patients with a history of allergy to ester compounds.
- 2.) In patients with suspected hypersensitivity to the amides (lidocaine, mepivacaine, etc.), the reaction may be due to the preservative (if present) or the local anesthetic. In these patients, skin testing by an allergist may be of value.

Additional Questions?
Call Pharmacy @ extension 7470