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Local Anesthetic Toxicity

While it is rare for patients to manifest serious adverse effects or experience complications secondary to local anesthetic administration, adverse events do occur. The dose of local anesthetic administered must take into consideration several factors: ischemic heart disease, cardiac arrhythmias, poor cardiac function, hypercapnia, metabolic disease, low plasma protein concentration, advanced age. Although the signs and symptoms of local anesthetic toxicity are unpredictable prevention should be ensured during all regional anesthetic procedures.

Recognition of signs of local anesthetic toxicity include:

- Sudden change in mental status, agitation, or loss of consciousness with or without seizures.
- Cardiovascular collapse - bradycardia, conduc-

tion blocks, asystole, or ventricular tachyarrhythmia may occur.

The most important step in treating local anesthetic toxicity is to recognize the diagnosis in a patient with altered mental status or cardiovascular instability. Central nervous system symptoms can be subtle or absent. Hypotension or bradycardia is often the only sign of toxicity. The most important factor in treating local anesthetic toxicity is aggressive airway management avoid hypoxia, hypoventilation and acidosis.

Management of local anesthetic toxicity includes:

- Immediately discontinue any further administration of the local drug;
- Call 911;
- Place patient in supine position;
- Administer oxygen;
- Maintain airway and initiate CPR;
- Confirm or establish IV access;

- Administer IV diazepam 5 mg over one minute titrated to effect; and
- Continue to closely monitor vital signs.
- May repeat bolus dose every 5 minutes for a total of 3 doses, until cardiovascular stability attained; and
- If no improvement, increase dose of lipid emulsion to 30mL/kg/hr until maximum cumulative dose administered (12mL/kg).

Once transfer to hospital setting is accomplished:

- Obtain an arterial blood gas;
- Administer intravenous bolus of lipid emulsion (20% lipid emulsion at 1.5mL/kg over 1 minute);
- Start infusion of 20% lipid emulsion at 15mL/kg/hr;

2012
AAOMS Office
Anesthesia Evaluation Manual,
8th Edition

DENTAL FUN FACT

DID YOU KNOW...

In the Middle Ages people believed that dogs' teeth boiled in wine made an excellent mouth rinse for tooth decay.

(<http://starsmilez.com/more-fun-dental-facts/>)

NEWS YOU CAN USE

Potential diversion of local anesthetics from dental offices for use as cocaine adulterants

Reports of lidocaine and benzocaine in the bloodstreams of people who abuse cocaine with accompanying reports of seizures and methemoglobinemia indicate that there is a potential that local anesthetics are being diverted from dental offices and being used as cocaine adulterants. These adulterants augment the nasal numbness produced by inhaling cocaine.

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Dr. Brian Simpson

**announces the nineteenth meeting of the
NANUET IMPLANT STUDY GROUP**

“Cancer of the Oral Cavity”

Speaker:

**Dr. Stanley M. Kerpel D.D.S.
Associate Director,
Oral Pathology Laboratory, Inc.**

Thursday, June 12, 2014

Dinner: 6:30 Presentation: 7:00 — 9:00 pm

Restaurant X 117 North Rte. 303 Congers, NY

2 CE credits awarded by the Ninth District Dental Association

Cost: \$50.00

**To register, contact Joanny: 845-623-3497
or email her at JoannyLatouche@gmail.com**

“The world is more malleable than you think and it’s waiting for you to hammer into shape.” -Bono, Irish Musician and Activist