Dental Anesthesia for People with CRPS/RSD

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Dentist Anesthesiologist
“...and this is Ralph, your anesthesiologist.”
Ralph Epstein, DDS
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- Private Practice – Great Neck NY, Greater Long Island, and New York City
- Past Chairperson, NYS Board for Dentistry – 2010 - 2012
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- Past President, American Society of Dentist Anesthesiologists – 1993 - 1995
Plan for Today

• ~30 minute presentation
• State regulations for dentists (very specific to each state):
  • Ketamine Techniques administered by dentist anesthesiologists
  • Important considerations for CRPS/RSD patients having dental care
    • With and without sedation or general anesthesia
  • Questions
State Regulations

• Certificates required for administration of sedation and general anesthesia:
  • Nitrous oxide
  • Minimal Sedation
  • Moderate Sedation/Conscious Sedation (including dissociative sedation)
  • Deep Sedation (Dissociative Sedation) & General Anesthesia

• Where does dissociative sedation fit into the definitions
• What medications can dentists administer?
• Is ketamine specifically mentioned in state regulations?

Dentists cannot treat CRPS/RSD but they can treat patients with CRPS/RSD
Ketamine Techniques Administered by Dentist Anesthesiologists using Ketamine

- Low dose ketamine typically administered with adjuncts to decrease dysphoria/hallucinations:
  - Midazolam
  - Propofol
  - Dexmedetomidine
  - Narcotics
- Low dose ketamine
  - Intermittent IV push administration
- Higher dose ketamine using infusion pumps for IV administration
  - Propofol & Dexmedetomidine administered with infusion pumps
Why Dexmedetomidine (Precedex)? With Ketamine

- **α₂ adrenergic receptor pharmacology**
  - Adrenergic receptors
    - Regulate release of neurotransmitters
    - Control epinephrine, norepinephrine release
    - Modulate sympathetic response “negative feedback loop”

- **Dexmedetomidine mechanism of action**
  - Negative Feedback
  - Alpha₂ receptor
  - Noradrenergic
  - Neuronal feedback loop

- **Dexmedetomidine, α₂ receptors, and the CNS**
  - Sites of action
    - Brain (locus ceruleus)
    - Spinal cord
    - Autonomic nerves
  - CNS
    - Sedation/hypnosis
    - Anxiolysis
    - Analgesia
  - Autonomic nerves
    - Sympathetic activity
      - ↓ BP, ↓ HR
Important Considerations
For
CRPS/RSD Patients Having Dental Care
Pain Free Dentistry!!! *Whatever it may take*

- **Profound Local Anesthesia**
  - Infiltration & Block local anesthesia
  - During procedure
  - Following procedure if postoperative pain is expected
- **Intravenous Sedation**
- **Deep Sedation/General Anesthesia**
Supporting Neck & Limbs

- Bolsters
- Gel supports
- Blankets
- Pillows
Limb Support

No support (Ligament stretching)  Support of wrist & elbow
Cervical Support
Additional Bolsters and Limb Support
Ventilation & Temperature Control

- Hot or cold air blowing on patient from ventilation systems
- Blankets
- Bair Hugger (Warm air blown into a special blanket)
Positioning – Making the Patient Comfortable

• Positioning of Chair
  • Supine position
  • Sitting-up position
Collaboration with pain doc
Ouch!!

The End

Questions ???
Perioperative Pain Management

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