Complications & Concerns with Dental Local Anesthesia

Patricia L. Blanton, Ph.D., D.D.S.

Professor Emeritus, Department of Anatomy, Baylor College of Dentistry – TAMUS and
Private Practice in Periodontics Dallas, Texas
Complications & Concerns with Dental Local Anesthesia

I. Malposition of needle
   A. Anatomical Abberation
   B. Operator Error

II. Facial Paralysis
    A. Parotid gland and facial nerve (Cranial nerve VII)

III. Nerve Trauma (transient versus permanent)
    A. Branches of Mandibular (3rd) Division of trigeminal nerve
       1. Lingual nerve
       2. Inferior Alveolar/Mental nerve
    B. Maxillary (2nd) Division of trigeminal nerve
       1. Posterior superior alveolar nerve
    C. Ophthalmologic concerns (Cranial nerves II, III, IV, VI)

IV. Vascular Concerns
    A. Hematoma
       1. Pterygoid plexus of veins
       2. Facial artery
       3. Maxillary artery/posterior superior artery
    B. Hemorrhage
       1. Maxillary artery
       2. Posterior superior artery
    C. Intravascular injection
    D. Vasovasorum

V. Skeletal Muscle Trauma
   A. Trismus
      1. Temporalis muscle/medial pterygoid muscle
   B. Necrosis
      1. Lateral pterygoid muscle

VI. Additional considerations of injection injuries to the trigeminal nerve
    A. Direct Trauma
    B. Chemical Trauma
REFERENCES


Rajchel, J., Ellis, E. and Fonseca, R.J. The anatomical location of the mandibular canal: Its


