**Geriatric Dentistry:**  
True or False - Teeth with Severe Periodontal Disease are Easy to Extract.  
False! Geriatric dentistry is complicated. Imagine a 10-year-old miniature Dachshund dog with severe periodontal disease requiring extraction of all canine and carnassial teeth (Fig. 1). The dog has compensated heart disease secondary to chronic mitral insufficiency and is in compensated chronic renal failure with a BUN of 40 mg/dl and creatinine of 2.5 mg/dl. The periodontal disease is so bad that it may be contributing to the severity of the renal disease, and could complicate the heart disorder. Talk about stress and... the teeth have to go! Older patients tend to have greater anesthetic risk, especially in conjunction with major organ dysfunction.

Critical care anesthesia and speed in performing the procedures are vital for a positive result. A multimodal anesthetic and pain management plan is required. Narcotic premedication, regional and local nerve blocks, anti-inflammatories (such as ketoprofen and transdermal fentanyl patches) provide 3 different drug classes for perioperative pain management. Anesthetic induction with short-acting drugs such as propofol aid a smooth recovery. Positive-pressure ventilation during the procedure to ensure appropriate ventilation and oxygen perfusion and state-of-the-art monitoring including pulse oximetry, non-invasive blood pressure, end-tidal CO2, ECG, heart rate, and core body temperature minimizes anesthetic risk. Double heating pads during the procedure, and kennels with heated floors aid anesthetic recovery. Medications that could negatively affect cardiac or renal function, and blood pressure are avoided.

The presence of severe periodontal disease does not mean the extractions will be "easier". Surgical tooth extraction requires mucogingival flap techniques to expose diseased periodontal tissues and alveolar bone. Judicious removal of alveolar bone and crown sectioning facilitate extraction. Ventral mandibular bone may be deficient from the destructive periodontal disease process. Extraction forces used in younger patients without complication may cause mandibular fracture in geriatric patients. Following extraction, the mandible is relatively weaker. Synthetic bone stimulating materials (B) aid in restoration of bony integrity following extraction. Pre- and postoperative images show application of the material in mandibular alveolar sockets (C) and at mandibular incisor and canine teeth extraction sites (arrow) (E).

**Oral Tumors:**  
True or False - Surgery is Almost Always Part of a Multimodality Treatment Plan for Oral Tumors.  
True! The referring clinician, oral and maxillofacial surgeon, and oncologist work as a team to stage the neoplasm: CBC, serum chemistries, thoracic radiographs +/- MRI or CT scan of the lesion, incisional or excisional biopsy, and regional lymph node (mandibular, parotid, medial retropharyngeal) excisional biopsy. Why is the staging process important? This information is valuable to the owner/surgeon/oncologist to decide: Has the neoplasm already metastasized? Is the neoplasm potentially resectable? What is the prognosis with complete/excisional? What type of follow-up oncologic therapy will be recommended? The surgeon’s operative goal is always tumor-free margins following resection. This goal often necessitates aggressive en bloc surgery with 1-2 cm gross tumor-free margins. CO2 laser surgery for soft tissue resection decreases postoperative pain and decreases intraoperative hemorrhage. Ostectomy of associated bone is required. In fact, since skin is usually within the margin area, cutaneous resection is often indicated (Fig. 3). Therefore, surgery may involve the hemorrhage-prone nasal cavity, or lip resection (Figs. 4 and 5). Familiarity with various plastic and reconstructive surgery techniques is important since postresection wounds may be intimidating and appear daunting to do. Intracranial lesions may require large buccal mucosal flaps or a hard palate mucoperiosteal flap based on the greater palatine artery to provide wound closure and avoid oronasal fistula as a complication (Fig. 5).

**Salivary Gland Disease:**  
True or False - An effective treatment protocol for salivary mucocele includes intermittent aspiration and antibiotics.  
False! A mucocele is an accumulation of saliva in the subcutaneous tissue and the consequent tissue reaction to saliva. The fact that a mucocele is not a cyst but is a reactive encapsulating structure has prompted surgical removal of the affected gland/duct complex. The exact etiology is unknown, but the lesion does not resolve unless the affected salivary gland and ducts are removed. The clinical signs associated with salivary mucocele depend on the location of the mucocele. The most common presenting history for cervical mucocele is a slowly enlarging or intermittently large, fluid-filled, nonpainful swelling (Fig. 6). Blood-tined saliva secondary to trauma caused by eating, poor prehension of food, or reluctance to eat are classic signs of sublingual mucocele. Clinical signs of pharyngeal mucocele include respiratory distress and difficulty in swallowing secondary to partial obstruction of the pharynx (Fig. 7). Diagnosis of salivary mucocele is based on clinical signs, history, and evaluation of aspirated fluid. Mucocele aspiration reveals a stringy, sometimes blood-tined fluid with low cell numbers. The most common defect location causing mucocele originates in the sublingual salivary gland/duct complex (Fig. 8). The intimate anatomic association of the sublingual and mandibular glands and their ducts requires resection of both structures. Surgical removal of both the sublingual and mandibular salivary glands, combined with resection of the mandible, has been advocated for treating cervical mucoceles.

Pharyngeal and sublingual mucoceles are treated by removing the mandible and sublingual salivary glands, based on the common etiology of a sublingual gland/duct defect. Resective surgery is preferred for pharyngeal mucocele since life-threatening upper airway compromise or morbidity from swallowing dysfunction and aspiration pneumonia are potential complications of conservative management or recurrence. The zygomatic salivary gland can be affected by neoplasia, inflammation, or mucocele (Fig. 9). Mesenchymal origin of the zygomatic gland is indicated either for neoplasia, which involves surgery as part of the treatment protocol, or for mucocele of zygomatic origin.