

Complications of complicated surgical extractions

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Veterinary dentistry is unlike other fields of veterinary medicine in that the majority of pathology may not be able to be diagnosed, or even evaluated properly, until the patient is under anesthesia. Many clients are unaware of the status (or sometimes even presence!) of their pet's teeth until there is overt pathology present. At that time, many dogs and cats present to their veterinarian for 'just a dental cleaning' and their owners are shocked to find surgery is needed to treat their pet's oral disease, and that much more than a professional dental cleaning is necessary. The pet is typically middle-aged, has not had a professional dental cleaning before, does not receive oral homecare, and the owners are noticing oral malodor, spontaneous exfoliation of teeth, draining tracts, pain when eating, dysphagia etc. Thankfully oral disease in pets is at a much higher degree of awareness than it has been in the past, and we as a profession are trying to achieve actual preventive procedures (true prophylaxis) in veterinary dentistry.

This lecture focuses on surgical extractions – the ultimate, final treatment for periodontal disease, endodontic disease, tooth resorption etc. We will also discuss some alternatives to extraction and give examples. Like any surgical procedure, surgical extraction of teeth has potential complications. Factors that contribute to complications are degree of pathology present, breed-specific anatomy, age of the pet, concurrent trauma, concurrent neoplasia or previous treatment/radiation of the area and of course compliance (specifically non-compliance by both the pet and the owner).

Complications include: fractured roots, fractured jaw, retained tooth roots, osteomyelitis, orbital trauma, oronasal fistula formation, hemorrhage, and damage to permanent tooth buds, among others. There are several book chapters that cover potential complications of extractions (please see below for additional reading).

The clinician should be comfortable performing routine surgical extractions on a cadaver prior to performing them in a live patient. There are many wetlabs offered around the country that can aid in attainment of proficiency in surgical extractions. Several key tenets important to successful surgical extractions are: proper preparation of the tooth which involves proper exposure, alveolectomy and sectioning (where applicable). Additionally, correct materials (sharp instruments, correct size carbide or cutting burs on a high speed handpiece, etc.) and controlled, carefully placed force are essential. Patience (above all else!) and tension-free closure as well as postoperative compliance (both client and patient) are also vital.

This lecture is presented as Morbidity & Mortality Rounds, in which select surgical cases are presented with associated complications. Each case is discussed and then recommendations and learning points are given.

Suggested additional reading:

1. Lommer MJ. Complications of extractions. In: Verstraete FJM, Lommer M. Oral and maxillofacial surgery in dogs and cats. Edinburgh: Saunders Elsevier; 2012:153-159.
2. Exodontics. In: Holmstrom SE, Fitch PF, Eisner ER. Veterinary dental techniques for the small animal practitioner. Philadelphia: Saunders Elsevier; 2004: 291-338.
3. Gengler B. Exodontics: extraction of teeth in the dog and cat. *Veterinary Clinics of North American: Small Animal Practice*. 2013; 43:573-585.
4. Volker MK, Luskin IR. Surgical extraction of the mandibular canine tooth in the cat. *Journal of Veterinary Dentistry*. 2012; 29:134-137.