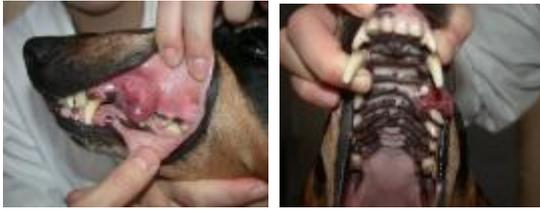


# Oral Cancer in Companion Animals



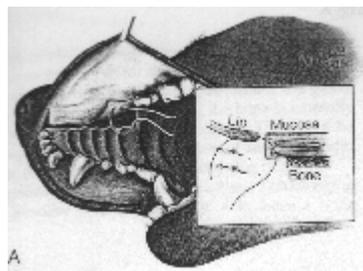
Oral cancers are common, especially in dogs and regular examination at the time of an annual health check is useful for early identification. The vast majority originate from the gingival margin of either the mandible or maxilla and grow between teeth. Often alveolar bone loss causes displacement or loosening of dentition.

Four histological types represent the vast majority of canine oral malignancies: fibrosarcoma, malignant melanoma, squamous cell carcinoma and acanthomatous epulis. It is important to know the type of cancer in order to offer an accurate prognosis to the pet owner as the risk of local recurrence and metastatic rate vary greatly. Size and location within the mouth also affect prognosis for some of the tumor types. In cats the majority are squamous cell carcinomas which carry a poor prognosis especially if caudal and involving the tonsils.



Staging disease is important prior to performing surgery so that a treatment plan can be developed. Thoracic radiographs and evaluation of draining lymph nodes is performed to exclude cases where overt metastatic extension has already occurred. Fine-detail intraoral radiographs, including both open-mouth and oblique lateral views, allow evaluation of osseous involvement. Advanced imaging, such as CT / MRI, is available in Melbourne to further understand disease extent and minimize the risks of incomplete resection.

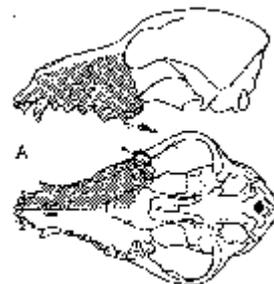
Limited options for definitive treatment of oral neoplasia exist due to the poor response and limited access to radiation therapy and the overall poor response rate to systemic chemotherapy. Surgical excision, with adequate margins (>10mm bone), is considered the *gold standard* and should be discussed / offered to clients with pets having oral cancers which may be amenable to surgical removal. Many, initially hesitant pet owners, return with a positive attitude when they realize their pet has recovered quickly and has been given a chance at an extended life of excellent quality.



Dogs and cats cope well and will tolerate aggressive oral surgery. Most will resume eating within a few days. Fortunately, the presence of large upper lips permit a cosmetic result in many cases of both mandibulectomy and maxillectomy. Feeding tubes can be used to provide nutritional support for patients that are in poor body condition or who are at risk of malnutrition if they do not eat immediately after surgery. Our preferred enteral tube is the esophagostomy tube which can be placed quickly under light anaesthesia and can be removed at any time.



Various types of surgical excision have been reported and in concept include uni- or bilateral mandibulectomy or maxillectomy. In general, more lateral and rostral procedures have less complications and are easier to perform. Bilateral mandibulectomy is also common and can be performed caudal to the canine teeth. A complete hemimandibulectomy, including removal of the temporomandibular joint, can be used to manage caudal disease confined to one side.



Rostral hemimaxillectomy

Although embryotomy (Gigli) wire or an osteotome & mallet can be used to cut bone, an oscillating bone saw offers superior control and speed. Regional nerve blocks (infraorbital and major palatine) using bupivacaine local anaesthesia are often used to augment systemic opioids and NSAIDs for intra and postoperative analgesia.

Potential complications after aggressive oral cancer excision include poor function, infection and dehiscence. Due to the rich blood supply, the oral cavity tends to heal well and as long as there is limited tension at the suture line, the incidence of problems is acceptable. The risks increase with lesions that are large, caudal and close to midline. Regular rechecks within the first week are ideal to identify early problems and allow timely intervention.