of appropriate chemotherapy agents, possible immunotherapy agents and when external beam radiation is indicated. Appropriate protocols, agents and toxicities will be covered.

KEY LEARNING OBJECTIVES

- Be aware of the types and indications for complex mandibular surgery in cats and dogs
- Be aware of the types and indications for complex maxillary surgery in cats and dogs
- Understand the adjuvant therapies for common malignancies in cats and dogs

MULTIPLE CHOICE QUESTIONS

1. Which of the following is a key feature of decision making when planning mandibular resection?
 - (A) The number of teeth involved

- (B) Whether the tumour has entered the mandibular alveolar canal
- (C) If the tumour crosses midline
- (D) If the overlying skin is invaded

2. What does an appropriate choice for adjuvant chemotherapy for tonsillar squamous cell carcinoma include?
 - (A) Vinblastine
 - (B) Lomustine
 - (C) Cyclophosphamide
 - (D) Carboplatin
3. For osteosarcoma affecting the oral cavity, what is one of the most important prognostic factors?
 - (A) Mitotic index (per 10 high powered fields)
 - (B) A clean surgical margin
 - (C) Draining lymph nodes free of metastasis
 - (D) Degree of bone destruction

Mapping lymph nodes: the whys and the wherefores

Nicholas Bacon

The detection of lymph node metastasis is important to quantify spread of cancer in cats and dogs. Although the majority of sarcomas disseminate by vascular invasion, carcinomas and round cell tumours primarily spread through the lymphatic system. Determining exactly which is the draining lymph node to these primaries, however, might require sentinel lymph node mapping. Very often the regional lymph node is the sentinel lymph node, that is, the one you might anticipate, but sometimes nodes in unpredictable anatomical locations might also function as the sentinel node.

Accurate nodal staging might rely on palpation, fine needle aspiration, or even lymph node extirpation, but all rely on the node being sampled to be the sentinel node. In small animal practice a variety of techniques have been described for mapping, including radiographic lymphangiography, intraoperative blue dye mapping, computed tomography (CT) lymphangiography, contrast-enhanced ultrasonography and lymphoscintigraphy.

Sentinel lymph node mapping in veterinary medicine needs to be simple, inexpensive, accurate and safe, if it is to have a significant chance of becoming more mainstream. There must be a short learning curve, with minimal additional equipment being required. Techniques which fit into this category, including their benefits and drawbacks, will be covered in the lecture.

KEY LEARNING OBJECTIVES

- Understand that predicting which lymph node will drain a particular tumour is not straightforward
- Be aware that identifying the sentinel (first) lymph node is important for accurate and appropriate staging
- Know what techniques exist that can be employed in daily practice to understand tumour biology of a specific patient

MULTIPLE CHOICE QUESTIONS

1. Which of the following is correct about sentinel lymph node mapping?
 - (A) Identifies only positive metastatic lymph nodes
 - (B) Identifies the first draining lymph node
 - (C) Can only be performed at the time of surgery
 - (D) Will be successful in 100% cases
2. Which of the following should be done in CT lymphangiography?
 - (A) The contrast should be injected directly into the tumour
 - (B) The contrast should be injected without dilution
 - (C) The tumour tissue should be massaged after injection to promote drainage
 - (D) Contrast should only be injected peritumourally
3. What should the dilution of iodine contrast solution be for CT lymphangiography?
 - (A) 20% dilution
 - (B) 25% dilution
 - (C) 33% dilution
 - (D) 50% dilution