Feline injection site sarcoma

Surgical management combined with radiotherapy is the best option for treating the rare malignant tumour

Histology and behaviour

The majority of FISS are fibrosarcomas, but behave very aggressively compared to other sarcomas, with faster growth, increased local invasiveness (often extending along fascial planes) and higher recurrence rates following surgery (14 to 59 percent). Metastasis is reported to occur in 10 to 28 percent, most commonly to the lungs, and therefore complete staging is essential. Contrast enhanced CT or MRI imaging allows for accurate planning and appropriate decision making; incomplete margins can result in recurrence as soon as two weeks post-operatively. A disease-free interval of approximately two years is possible with tumour-free margins, as opposed to 100 days with incomplete removal. Recurrence rates of up to 50 to 70 percent within six months are reported even with clean margins.

Surgical management

Radical surgical excision with follow-up adjunctive treatment offers the best prognosis. Complete en-bloc resection with a minimum of 3 to 5cm lateral margins (Figure 1) and one or two complete deep fascial planes is advised. Given that numerous reports document that surgeons achieve smaller histopathological margins than they plan or report intra-operatively for a variety of skin tumours, and given the invasive nature of FISS, it is wise to aim for 5cm lateral margins and two deep fascial planes.

A retrospective study (Phelps et al., 2011) found that a 5cm lateral margin resection can achieve a median survival time of 900 days, with 14 percent local recurrence and 20 percent distant metastasis after surgery. With no recurrence or metastasis following complete excision, survival times of 1,500 days are reported (probably surgical cure). These