

## 1. Introduction

Ionizing radiation is becoming more popular and accessible as a therapeutic modality for animal cancers. Radiation has been examined as a treatment of canine sarcomas (BREWER and TURREL, 1982; EVANS, 1987; FORREST et al., 2000; MCKNIGHT et al., 2000) as well as other canine cancers such as malignant melanoma (BLACKWOOD and DOBSON, 1996), mast cell tumors (AL SARRAF et al., 1996), periodontal tumors (THEON et al., 1997a), squamous cell carcinoma (LADUE-MILLER et al., 1996), thyroid carcinoma (BREARLEY, 2000; PACK et al., 2001), nasal carcinoma (ADAMS et al., 1987; THEON et al., 1993), brain tumors (GAVIN et al., 1995) and has a role in the palliation of osteosarcoma (RAMIREZ et al., 1999) and in systemic diseases such as lymphosarcoma (MELEO, 1997).

A retrospective review of 73 dogs that received radiation therapy for soft-tissue sarcoma was undertaken with the goals of characterizing the study group, examining survival and local recurrence, and exploring the relationship between selected presenting factors and treatment failure. Although several studies have documented the use of radiation in the treatment of soft-tissue sarcoma, no single study has described the use of radiation for treating measurable as well as resected disease, of oral and non-oral tumor locations with definitive and palliative radiation treatment protocols.