

TOXICITY CRITERIA OF THE VETERINARY RADIATION THERAPY ONCOLOGY GROUP

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The reporting of radiation induced side effects is subjective and inconsistent, to say the least. A standard reporting scheme available to veterinary oncologists as a guideline would be helpful in collecting objective data. In 1995, the Radiation Therapy Oncology Group and European Organization for Research and Treatment of Cancer published toxicity scoring criteria for human patients undergoing radio-

therapy.¹ These tables have served as a source of scoring in veterinary oncology, but often are not applicable to animal patients. We presented tables more appropriate for scoring radiation-induced toxicity in the veterinary patient at the American College of Veterinary Radiology 2000 Annual Meeting. These tables have since been approved by the newly formed Veterinary Radiation Therapy Oncology Group and are presented here (Tables 1,2). It is our intent that these tables will serve as a standard guideline in the field of veterinary oncology.

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REFERENCES

1. Cox JD, Stetz J, and Pajak TF. Toxicity Criteria of the Radiation Therapy Oncology Group (RTOG) and the European Organization for Research and Treatment of Cancer (EORTC). *Int J Rad Oncol Biol Phys* 1995;31(5):1341–1346.

TABLE 1. VRTOG Acute Radiation Morbidity Scoring Scheme

Organ/Tissue	0	1	2	3
Skin/hair	no change over baseline	erythema, dry desquamation, alopecia/epilation	patchy moist desquamation without edema	confluent moist desquamation with edema and/or ulceration, necrosis, hemorrhage
Mucous membranes/oral cavity	no change over baseline	injection without mucositis	patchy mucositis with patient seemingly painfree	confluent fibrinous mucositis necessitating analgesia, ulceration, hemorrhage, necrosis
Eye	no change over baseline	mild conjunctivitis and/or scleral injection	KCS requiring artificial tears, moderate conjunctivitis or iritis necessitating therapy	severe keratitis with corneal ulceration and/or loss of vision, glaucoma
Ear	no change over baseline	mild external otitis with erythema, pruritis 2° to dry desquamation not requiring therapy	moderate external otitis requiring topical medication	severe external otitis with discharge and moist desquamation
Lower GI	no change over baseline	change in quality of bowel habits not requiring medication, rectal discomfort	diarrhea requiring parasympatholytic medications, rectal discomfort requiring analgesia	diarrhea requiring parenteral support, bloody discharge necessitating medical attention, fistula, perforation
Genitourinary	no change over baseline	change in frequency of urination not requiring medication	change in frequency of urination necessitating medication	gross hematuria or bladder obstruction
CNS	no change over baseline	minor neurologic findings not necessitating more than prednisone therapy	neurologic findings necessitating more than prednisone therapy	serious neurologic impairment such as paralysis, coma, obtunded
Lung	no change over baseline	alveolar infiltrate; cough requiring no treatment	dense alveolar infiltrate; cough requiring treatment	dyspnea

TABLE 2. VRTOG Late Radiation Morbidity Scoring Scheme

Organ/Tissue	0	1	2	3
Skin/hair	none	alopecia, hyperpigmentation, leukotrichia	asymptomatic induration (fibrosis)	severe induration causing physical impairment, necrosis
CNS	none	mild neurologic signs not necessitating more than prednisone therapy	neurologic signs necessitating more than prednisone therapy	seizures, paralysis, coma
Eye	none	asymptomatic cataracts, KCS	symptomatic cataracts, keratitis, corneal ulceration, minor retinopathy, mild to moderate glaucoma	panophthalmitis, blindness, severe glaucoma, retinal detachment
Bone	none	pain on palpation	radiographic changes	necrosis
Lung	none	patchy radiographic infiltrates	dense radiographic infiltrates	symptomatic fibrosis, pneumonitis
Heart	none	ECG changes	pericardial effusion	pericardial tamponade, congestive heart failure
Joint	none	stiffness	decreased range of motion	complete fixation
Bladder	none	microscopic hematuria	pollakiuria, dysuria, hematuria	contracted bladder