



RADIATION THERAPY

Radiation therapy is effective for control of certain types of cancer. It may be used alone or in combination with other forms of treatment. It is indicated for the treatment of tumors that would have unacceptable functional and/or cosmetic side effects if surgery was used to remove them. It can also be used to eliminate residual disease left behind when surgery did not remove all of the tumor. All of the side effects associated with radiation therapy will be limited only to the area where the radiation is applied. “Radiation sickness”, manifested by nausea, vomiting, and diarrhea, is not seen in veterinary patients.

Radiation therapy cannot be given in a single large dose sufficient to control tumors without causing severe complications. Giving small doses over a period of time gives the best chance of controlling the tumor with minimal damage to surrounding normal tissues. Radiation therapy is usually given in 12 or more small doses of radiation over a 3-4 week period. Each treatment requires 10-30 minutes. The patient must remain perfectly still during the treatment so that the radiation only goes where it is needed. A short-acting anesthetic is given to immobilize the patients. There is a small but definite risk associated with repeated anesthesia and patients are monitored closely.

The field of irradiation is localized to the tumor and margin of normal tissue around it. There are some expected reactions. Your pet will lose the hair in the irradiated site only. In the vast majority of cases, the hair regrows, but it may be a different color or texture. A moist dermatitis (the so-called “radiation sunburn”) also may occur toward the end of therapy. This reaction will last about two weeks and always goes away. If your pet’s mouth is involved in the radiation field, increased salivation, odor and some tenderness will occur at about the same time the skin reactions do and last about as long. Because of this, soft low salt food will be more palatable and should be fed the first 2-3 weeks following therapy. Mouth-wash rinses are available which will help decrease these reactions. The chance of a severe local response to normal tissues is less than 5%. If the eyes have to be included in the treatment field, a cataract will eventually develop over the next 6 months to one year and will limit vision.

Many factors affect whether or not a tumor will respond to radiation therapy. Larger tumors require larger doses than smaller ones. The anatomical location may mandate that sensitive normal tissues, such as the eye, be included in the treatment field. The type of tumor is also important as well as the type of radiation therapy used. The effects of the radiation therapy are not instantaneous. Most tumors will not have any visible changes for several weeks. Some will not change in size, but stop growing. The most important thing to remember is that while the side effects will be manageable and transient, tumor control should be permanent. Your veterinarian will work closely with you to keep your animal comfortable and healthy during radiation therapy. The quality of time you spend with your pet is always the first priority. After therapy is completed we would like for you to return for scheduled rechecks, usually at 1, 3, 6, 12 months from the end of therapy, and then yearly thereafter. Please call the clinic ahead of time to schedule your pet’s appointments. Depending on the tumor and its location, at each recheck we will perform a physical exam, and possibly some blood tests and x-rays of the lungs and/or affected area.

Betsy Hershey | DVM, DACVIM (Oncology)

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Radiation is performed at the radiation facility owned by Southwest Veterinary Oncology of Arizona Veterinary Specialists in Gilbert, AZ. To schedule an appointment please call them directly at 480-635-1110.

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