



Michigan Veterinary Specialists_{sm}

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Oncology Service

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Radiation Therapy

Radiation therapy is a form of local cancer treatment (like surgery). It only kills cancer cells that are directly in the treatment field so it is most helpful in localized tumors that have a low rate of metastasis (spread to other organs). In some cases, cure is the goal. In other cases, it can be used as a palliative treatment to control pain or other symptoms of the tumor. We use radiation therapy for patients that would have unacceptable functional and/or cosmetic side effects if surgery would be used for tumor removal. We also use it after surgery if the tumor can't be completely removed. Sometimes we use radiation therapy before surgery to make the tumor smaller and easier to remove.

Radiation therapy cannot be given in one large dose without causing severe complications in the normal surrounding tissues. Therefore, we administer small doses over a period of time to give the best chance of tumor control while minimizing damage to the normal tissues. An individual treatment plan is made for each patient based on tumor location and tumor type. These plans typically include fifteen (15) or more small doses given Monday through Friday over a 3-4 week period. There are some tumors, however, that require fewer treatments. Each treatment requires 15-30 minutes. Because our patients must remain still during each treatment, they are given a short-acting anesthetic. There is a small risk associated with repeat anesthesia so each patient is monitored very closely during treatment. Over the course of treatment, blood work may be done for further monitoring. Special x-rays, called port films, are taken intermittently to make sure the treatment field remains consistent.

Side effects: The field of radiation is localized to the tumor and a surrounding margin of normal tissue. Side effects occur only in the treatment field. These can include:

Hair loss: Most pets lose hair in the treatment field. It usually grows back but it may be a different color (often white) or texture.

Moist dermatitis (moist desquamation): This is a reddened, oozy inflammation of the skin that can occur toward the end of therapy. It usually lasts about 2 weeks and then resolves.

Dry dermatitis (dry desquamation): The skin becomes very flaky and can be quite itchy. It usually occurs toward the end of therapy, lasts about 2 weeks, and then starts resolving.

Oral mucositis: If the mouth is in the treatment field, increased salivation, odor, and some tenderness can occur. This usually happens at the same time and for the same duration as the skin reaction.

Cataracts: If the eye is in the treatment field, a cataract will develop in that eye within 6 to 18 months. This will eventually limit vision.

Other late side effects: Very unlikely side effects may include death of the normal tissue or tumor formation in the treatment field. These uncommon side effects are usually not seen until longer than one year after treatment.

We will work closely with you to keep your pet comfortable and healthy during radiation therapy. Specific at-home care will be recommended when side effects start to occur.

Response to treatment: Many factors, including tumor size, location and histologic type, influence whether a tumor will respond to radiation therapy. The effects of radiation therapy are not instantaneous. Most tumors will not show any visible change for several weeks. Some tumors may not decrease in size but may stop growing larger. Some tumors will not respond to treatment at all.

Treatment schedule: Treatments can either be arranged at a specific daily appointment time, or your pet can be dropped off in the morning each day. We can also arrange boarding for part or all of the treatments for those who live too far to make the daily trip to MVS. If you have a specific appointment time, your pet should be ready to go home within about 90 minutes. Please do not feed your pet after midnight the evening before treatment. Water should be available at all times. Resume normal feeding after each treatment.