



Amy J. Randall, DVM, MS, Diplomate, ACVD

Dr. Randall performed her residency at The Ohio State University and earned a masters degree. She is board-certified by the American College of Veterinary Dermatology. Dr. Randall has a practice in Portland, Oregon called Animal Allergy and Ear Clinic and currently travels to North Carolina to see patients one week out of the month. She is currently seeing patients out of Happy Tails Veterinary Emergency Clinic in Greensboro.

After receiving her doctorate of veterinary medicine from NC State University, Dr. Amy Randall practiced general veterinary medicine for a year in Fredericksburg, VA. She then completed a two-year internship in veterinary medicine and surgery at Mississippi State University.

Benefits of Surgical CO2 Laser in Veterinary Dermatology

The lasers in use for medical purposes are referred to as light lasers. These lasers emit a beam of radiation that is visible to the human eye. The CO2 (carbon dioxide) laser has proven to be an excellent choice for laser surgery and is the primary laser used in veterinary dermatology. The CO2 laser beam is absorbed by water. Because water is the main component of all living cells, the CO2 laser beam is absorbed efficiently with minimal thermal scattering and damage to surrounding tissues. Cells in tissue exposed to the high intensity beam of the CO2 laser are disintegrated by vaporization.

Advantages to Using CO2 Lasers

There are several advantages to using this type of laser over conventional scalpel surgery. Lasers reduce the amount of bleeding. They effectively seal very small blood vessels, reducing the pain associated with the procedures by sealing nerve endings. Therefore, many of the procedures do not require general anesthesia. I have been able to remove many skin tags, masses and skin cancer with local anesthesia and mild - moderate sedation. This allows us to provide treatment options for clients with very old animals who are anesthetic risks. Many of the laser procedures do not need to be sutured. The pet does not need suture removal and sometimes this also decreases the need for ecollars which some animals do not tolerate.

CO2 Laser Can Be Used for the Following Dermatologic Conditions

CO2 laser surgery has enabled me to treat the following conditions effectively and successfully. In many cases, laser surgery is easier, more effective, and less harmful to the animal. In some cases, laser treatment is the only method to achieve adequate results.

Viral Papillomas

Papillomas, which are more common in dogs, are due to a virus that causes wart type growths in the mouth, on the footpads or in between the toes. They are very painful and can be very challenging to resolve if they do not resolve spontaneously. The warts can grow in size very

rapidly and spread very quickly in the mouth. Here are a few pictures of papillomas in dogs. Laser surgery is very successful on the feet. In the oral cavity laser surgery, in conjunction with interferon, is very successful in resolving this condition.



Papilloma Virus

Canine Pigmented Viral Plaques

In dogs, these plaques start out as very small, darkly pigmented spots (most appear black) which are usually seen on the belly, chest, back or ears. They will usually enlarge over time and become more numerous. When noticed and evaluated closely, they are slightly raised and rough to the touch. They vary in size from 2mm to 1 to 2cm. They are more common in Miniature Schnauzers and Pugs, but can be seen in any breed. They are associated with a papilloma virus and there is concern they could transform into a type of cancer called carcinoma. Removal is recommended.

Squamous Cell Carcinoma

Squamous Cell Carcinoma (SCC) most commonly occur in sun-exposed areas. In cats, they present on the nose, ears, or face, whereas they are most commonly located on the ventrum in dogs. Other locations include the mouth and nail beds. In the early stage of SCC it appears like a small brown pigmented spot on the skin or nose.



Squamous Cell Carcinoma

This will usually become a scab which never heals. It then progresses to an ulcerated bleeding lesion which spreads and becomes larger. CO2 laser can be very successful in removing SCC when it has been identified early and the cancer has not gone deep into the tissue and is not involving the entire nose.

Pinnal (Ear Flap) Tumors

These types of tumors/growths on the ear can be difficult to remove with conventional surgical excision without causing disfiguration of the pinnae. There is usually excessive bleeding which requires sutures for control. When the tumor is removed via scalpel blade, surrounding normal skin and structures are often removed also causing excessive deformities in the ear. The CO2 laser allows tumor removal without the need for sutures and usually avoids damage to surrounding normal ear tissue. Therefore, there is less scar formation and minimal deformity to the ear, as well as less discomfort to the patient post surgery.



Pinnal Growth

Other easily removable masses from the skin include skin tags, sebaceous adenomas, cysts between the toes (due to hair follicle rupture).



Sebaceous Adenoma



Cyst-like Mass

The Animal Allergy and Ear Clinic offers this treatment option as an alternative to conventional surgery for selected cases.



animal allergy and ear
CLINIC LLC
(503) 574-4150 | See ad on page 10.