Nasal arteritis is a proliferative arteritis that results in ulcers of the nasal philtrum and can cause significant hemorrhage. Although this is a rare disease, we have seen at least three cases recently at Fox Valley Animal Referral Center. Murphy, a four and a half year old MN Saint Bernard, was one of our most memorable.

Murphy presented with the classic lesions: non-pruritic, non-painful, depigmented, and linear or circular ulcers of the nasal philtrum. Commonly, these lesions start 6 months to 5 years prior to diagnosis. Murphy’s had been present since he was one year of age. Some owners describe episodes of arterial bleeding from the ulcers, which may be mistaken for epistaxis. This bleeding can be severe and require a transfusion. Murphy was having episodes of profuse bleeding and was referred for continued diagnostics and critical care.

Murphy represents the most common breed, Saint Bernard, but other breeds are possible. Nasal arteritis has been reported in a Giant Schnauzer, a Bassett Hound, a Newfoundland, and we have seen two German Shepherds with this condition.

Diagnosis
Differentials include discoid lupus, parasympathetic nasal dermatitis, or neoplasia (squamous cell carcinoma or cutaneous lymphoma). Definitive diagnosis is achieved with biopsies, but this can lead to significant hemorrhage. If history and clinical findings are consistent with this disease, and there are no other signs of systemic illness on work-up, clinicians may consider initiating therapy.

If biopsies are performed, histopathology would reveal neutrophilic dermal inflammation subjacent to the ulcer and lymphoplasmacytic dermatitis bordering the ulcer. The deep dermal arteries and arterioles subjacent to the ulcer would be characterized by subendothelial spindle cell proliferation with marked extracellular matrix deposition (stained blue with Alcian Blue (mucin) and Masson’s trichrome (collagen)). This proliferation results in intimal thickening and stenosis of dermal arteries and arterioles.

Immunohistochemical studies suggest that the proliferating spindle cells are of either myofibroblast or smooth muscle origin (actin and vimentin positive).

Treatment
Long-term maintenance treatment appears to be necessary. Treatment options include a combination of tetracycline or doxycycline and niacinamide orally and/or immunosuppressive doses of glucocorticoids or cyclosporine orally. Topical cyclosporine or tacrolimus can be added to any oral treatment regimen and are recommended as primary therapy. Antibiotics may be added if there is concern for a secondary infection.

Surgery is rarely necessary if the patient is not responding to medical management or if the hemorrhage is severe. Removal of the ulcerated tissue may be curative and has been in reported previously in two cases.

Murphy was initially treated with topical tacrolimus and prednisone orally but continued to have episodes of arterial bleeding despite medical management. This case was taken to surgery to remove the ulcerated portion of the nasal philtrum and biopsies confirmed the diagnosis of nasal arteritis. Murphy was continued on immune suppressive medications. Eventually, his prednisone was weaned due to side effects and was replaced with oral cyclosporine and pentoxifylline. Over the next few months, the cyclosporine and pentoxifylline were weaned. Because this is a lifelong condition, Murphy’s long term management included topical tacrolimus, oral vitamin E, and fish oil supplements. Currently, he is doing well and his nasal septum is normal.

References
Meet Our New Critical Care Resident!

Jennie Hiratzka

Education: UW-Madison’s School of Veterinary Medicine in May of 2010
Internship: Wisconsin Veterinary Referral Center (Waukesha, WI) in June 2011

Jennie Hiratzka graduated from UW-Madison’s School of Veterinary Medicine in May of 2010. She completed an emergency focused internship at Wisconsin Veterinary Referral Center (Waukesha, WI) in June 2011 and then worked, for a year, in a general practice in Illinois. Dr. Hiratzka returned to the world of emergency for a critical care focused fellowship in Boston, MA, which was completed in June 2013.

Critical Care Resident!

Critical Care Resident!

Congratualtions!

Christopher Katz, DVM, MRCVS - WVMA Veterinarian of the Year Award.

Philip Johnson, DVM and James Kazmierczak, DVM - WVMA Meritorious Service Award.

Representative Dean Knudson, DVM - WSTA Veterinarian of the Year.

Lisa Peters, DVM, DACVECC - WSTA Veterinarian of the Year.

Lyn Schuh, CVT - WVPMA Practice Manager of the Year.

Wait for it!

Medicated shampoos commonly have instructions to lather the dog up and let the lather sit for 10-15 minutes before rinsing. It helps to have a second hand to help, but if you don’t have someone else, using a leash to keep the pet in place will help. Use a bathing area such as a tub, shower stall, or enclosed area. This will deter the pet from wanting to explore. Make bath time fun and interesting, use treats or their favorite toy to keep them still while the medicated shampoo sits.

Rub a Dub Dub!

Surgical hand preparation with alcohol based hand rubs are recommended by the World Health Organization as superior to surgical scrub with chlorhexidene or providone-iodine aqueous solutions for initial and residual reduction of resident skin flora.

The alcohol rub should meet the EN12791 or equivalent standard and should be left on for 1.5 to 3 minutes based on the manufacture recommendations. This can mean getting into surgery faster than with traditional scrubbing. If hands are visibly dirty, then washing with a pH neutral soap prior to using a rub is recommended.

AHR uses less water (hand scrubbing uses an estimated 20 liters of water per scrub) and leads to less microbial resistance. It has also been found to be less irritating to the skin.

“Evidence Based Hand Hygience in Veterinary Surgery: What is Holding Us Back?” Denis Verwilghen, DVM, MSc, PhD, DES, DECVS: proceedings from 2013 ACVS Conference.