



# Abbey Veterinary Services

## RAPID DIAGNOSTIC HISTOPATHOLOGY & CYTOLOGY

Clinico-Pathological Newsletter

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### CASE OF INTEREST

A Case of Burdock Stomatitis in a Cocker Spaniel

By: Richard Fox, Veterinary Pathologist.

A 8.5 year-old, spayed female Cocker Spaniel presented to a local practitioner for difficulty eating soft food. On examination there were multifocal painful swellings of the tongue and lips. Biopsies were taken from the underside of the tongue. and submitted for histopathologic examination.

Histologically in one section a small, refractile piece of plant material surrounded by moderate numbers of eosinophils, macrophages, neutrophils with lesser lymphocytes and plasma cells, was present in the mid to deep submucosa. The histologic diagnosis was moderate, multifocal, nodular, eosinophil-dominated stomatitis with intralesional plant material (suspected burdock spurs).

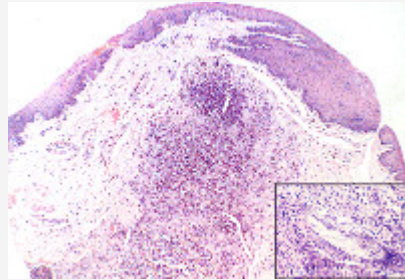


Figure 1. Burdock Stomatitis (click to enlarge)

Burdock stomatitis is a relatively common, but rarely reported, condition of the mouth of dogs and, less frequently, cats. The burs of the lesser burdock (*Arctium minus*) become trapped in the haircoat where they cause local irritation and mat formation. Other plants from around the globe can be involved. Grazing animals that eat sharp grass awns, spiny plants such as the prickly pear cactus (*Opuntia* spp.) or plants with burs such as cocklebur (*Xanthium* spp.) may injure the oral mucosa. Some common grasses such as foxtail barley, bristle grass and sandbur have seeds with sharp awns that can become embedded in the tongue and gums of animals eating them <sup>3</sup>.

The barbs of the burdock prevent easy removal and the burs inwardly migrate. Dogs especially, chew at them to try and remove them. in doing so, induce focal skin lesions but more commonly oral lesions <sup>1</sup>. The anterior aspects of the tongue, lips and nasal philtrum are usually affected. Excessive salivation, characterized by drooling or frothy saliva around the lips, is often seen in initial stages and animals may be anorexic (but some animals are asymptomatic <sup>1</sup>). Lesions often present as pale small papules. Advanced lesions may coalesce and ulcerate. Histopathology can be useful in determining that stomatitis is due to burdock and helps eliminate other aetiologies.

The only effective treatment is the removal of the material. Scraping with a scalpel blade over the affected area under general anesthesia has been used. The patient may be left with varying degrees of scar tissue, especially when the lesions involve the tongue <sup>2</sup>. Aftercare consists of systemic antibiotic therapy. Semi-liquid food should be offered until the lesions heal. Regular grooming assists in removing the burs and prevents the formation of lesions.

References:

1. Scott DW, Miller WH, Griffin CE. Muller and Kirk's Small Animal Dermatology 6th ed. W.B. Saunders Company, Philadelphia 2001:1091
2. Thivierge G. [Granular stomatitis in dogs due to burdock](#). Can Vet J 1973; Vol 14 (4):96-97
3. Georgi ME, Harper P, Hyypio PA, Pritchard DK, Scherline ED. [Pappus bristles: the cause of burdock stomatitis in dogs](#). Cornell Vet. 1982 Jan;72(1):43-8.
4. Knight AP & Walter RG, [Plants Affecting the Digestive System](#). Online @ www.ivis.org. 2003

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### JOURNAL REVIEWS (with e-links)

1. **Assessment of infectious organisms associated with chronic rhinosinusitis in cats.** Johnson LR, Foley JE, De Cock HE, Clarke HE, Maggs DJ. J Am Vet Med Assoc. 2005 Aug 15;227(4):579-85. [link](#)

Compared with findings in control cats, anaerobic bacteria, Mycoplasma spp, and a variety of potentially pathogenic organisms were detected more commonly in samples from cats with CRS. In both groups, FHV-1 was detected via PCR assay as a non-viable organism or in non-cultivable amounts.

2. **Canine cutaneous clear cell adnexal carcinoma: histopathology, immuno- histochemistry, and biologic behavior of 26 cases.** Schulman FY, Lipscomb TP, Atkin TJ. J Vet Diagn Invest. 2005 Sep;17(5):403-11. [Link](#)

Twenty six out of 30 tumours were classified histologically as clear cell adnexal carcinomas using vital stains and immunohistochemistry. Out of the 26 dogs one tumor recurred, 1 metastasized to a regional lymph node, and 1 metastasized to regional lymph nodes twice. In another case, possible pulmonary metastasis was noted radiographically. Similar canine cutaneous neoplasms have been reported as "clear-cell hidradenocarcinoma" and "follicular stem cell carcinoma" .

3. **Evaluation of papillomaviruses associated with cyclosporine-induced hyperplastic verrucous lesions in dogs.** Favrot C, Olivry T, Werner AH, Nespecca G, Utiger A, Grest P, Ackermann M. Am J Vet Res. 2005 Oct;66(10):1764-9. [Link](#)

Nine dogs that were treated with cyclosporine A and developed hyperplastic skin lesions were selected. in 7 of 9 dogs, there were more than 10 hyperplastic skin lesions that microscopically resembled those of psoriasiform lichenoid dermatosis. In 2 of the dog only 1 and 3 verrucous lesions were present, and in those dogs, histologic evaluation revealed koilocytes and nuclear viral inclusions that were immunoreactive for papillomavirus antigens. Papillomavirus DNA was amplified from both dogs. One of the sequences was characteristic for the canine oral papillomavirus, whereas the other had similarities with the recently described canine papillomavirus 2. In dogs, hyperplastic skin lesions occasionally develop during treatment with cyclosporine A. Most of the lesions resemble those of psoriasiform lichenoid dermatosis, although papillomavirus can be detected in some instances.

### LATEST NEWS

Unfortunately we have lost **Lucy Genovese** who has left us to travel the world. We would like to pass on our thanks for her contribution to AVS in the last 8 years. We would also like to pass on our congratulations to her for passing her American board exams and is now a diplomat of the ACVP!

**Ann Pocknel** has recently joined us to join our team of diagnostic histopathologists. She is a graduate from Ontario Veterinary College, Canada. After three years in practice she completed a Master's degree in veterinary pathology at the University of Saskatchewan, Canada, followed by a residency in zoo animal pathology in Wisconsin, USA. She is a diplomate of the American College of Veterinary Pathologists and the Royal College of Pathologists. She has specialised in Zoo animal pathology in working as a diagnostic pathologist at London Zoo.

### SUCCESS STORY

We would like to highlight our new fresher looking website which will be updated on a regular basis with interesting histological and cytological images and interesting case studies Any comments on this and our new e-newsletter are welcome.

If you wish to subscribe/unsubscribe to the e-newsletter please submit your e-mail address on any page our our new website!

- [www.abbeyvetservices.co.uk](http://www.abbeyvetservices.co.uk)
- [Your comments](#)

### BIOPSY TIPS

When taking skin biopsies use a biopsy punch of at least 4-5mm in diameter to prevent crushing artefact. Always sample more than one site (preferably at least 4 sites) when dealing with a generalised skin disease.

### OUR DETAILS

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