Medical Botany
14. Group Presentations

- Class is divided into 5 groups.
- Each group are assigned with a case.
- Students are asked to search for suitable herbal remedies for each case.
- Presentation of each group: 5 minutes

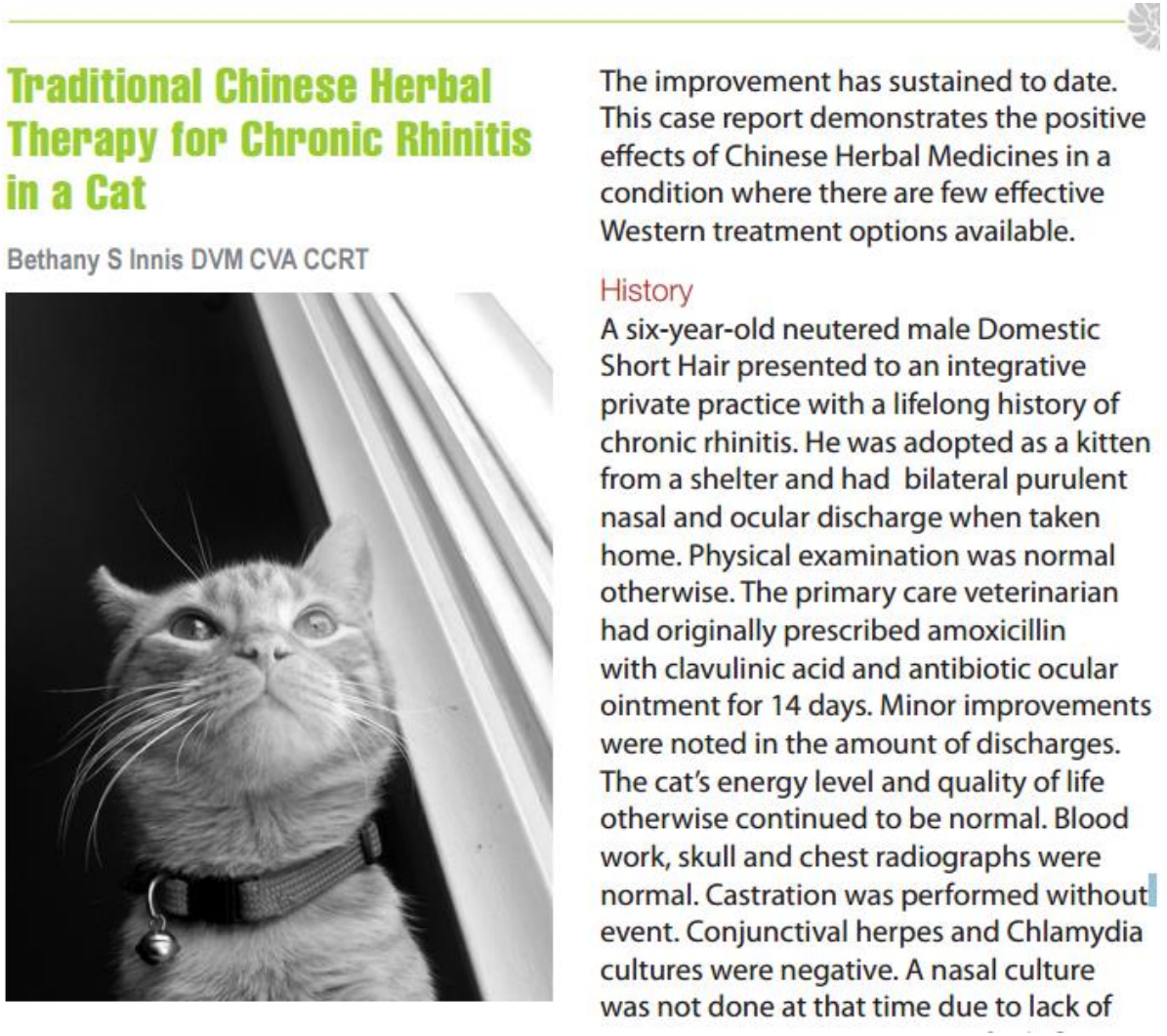
Group Assignments

Grup 1

Cat-Rhinitis

Find case information from:

http://www.civtedu.org/uploads/41572/ufiles/Journal/Traditional_Chinese_Herbal_Treatment_for_Chronic_Rhinitis_in_a_Cat.pdf



Traditional Chinese Herbal Therapy for Chronic Rhinitis in a Cat

Bethany S Innis DVM CVA CCRT

The improvement has sustained to date. This case report demonstrates the positive effects of Chinese Herbal Medicines in a condition where there are few effective Western treatment options available.

History

A six-year-old neutered male Domestic Short Hair presented to an integrative private practice with a lifelong history of chronic rhinitis. He was adopted as a kitten from a shelter and had bilateral purulent nasal and ocular discharge when taken home. Physical examination was normal otherwise. The primary care veterinarian had originally prescribed amoxicillin with clavulinic acid and antibiotic ocular ointment for 14 days. Minor improvements were noted in the amount of discharges. The cat's energy level and quality of life otherwise continued to be normal. Blood work, skull and chest radiographs were normal. Castration was performed without event. Conjunctival herpes and Chlamydia cultures were negative. A nasal culture was not done at that time due to lack of

Grup 2

Dog-Aggression

Find case information from:

http://www.civtedu.org/uploads/41572/ufiles/Journal/Aggressive_Pomeranian_Treated_With_Chinese_Formula.pdf

Aggressive Pomeranian Treated with Chinese Herbal Formula

Daren C Auguer DVM CVCHM

Abstract

A male neutered Pomeranian was presented for fear aggression issues. Treatment using a single Chinese herbal formula was used based on his Traditional Chinese Veterinary Medicine (TCVM) pattern analysis. Significant improvement in his condition was achieved.

requiring a muzzle for a full physical examination. The owner had mentioned that Gizmo was becoming more aggressive towards her grandchildren as well, to the point that she now segregates him into another room when they visit. She is very concerned. He will run up to them, bark an growl then runs away if they approach. He has had skin issues with seborrhoea sicca, poor hair regrowth and a thin dry dandruff with mild pruritus. Pruritus intensifies in fal He seems to dream more when allergies flare up, according to owner.

Previous medical history includes occasional vomiting and soft stool. Owner reports separation anxiety at home. Gizmo has presented to me in the past with red inflamed ears but every time he comes in there's no discharge, just erythema. Vaccines were up to date (DA2PP + Rabies). Previous medical history showed that Gizmo suffered from occasional gastrointestinal issues including vomiting, soft stools, borborygmus and belching. His appetite is good, however he has lost 1 kg since last examination. The owner reports a slightly increased amount of drinking

Group 3

Horse-Laminitis

Find case information from:

http://www.naturalhorsetalk.com/PDF/A%20Natural%20Apprach%20to%20Laminitis.pdf

A Natural Approach to Laminitis

By Lisa Ross-Williams

Photo courtesy of Marjorie Smith

Laminitis and Founder. Most horse owners have heard of these insidious conditions and many have had personal experience themselves. In fact, according to Dr. Chris Pollit, Director of the Australian Equine Laminitis Research Unit at Queensland University, chronic laminitis and founder are the 2nd biggest killer of horses after colic.

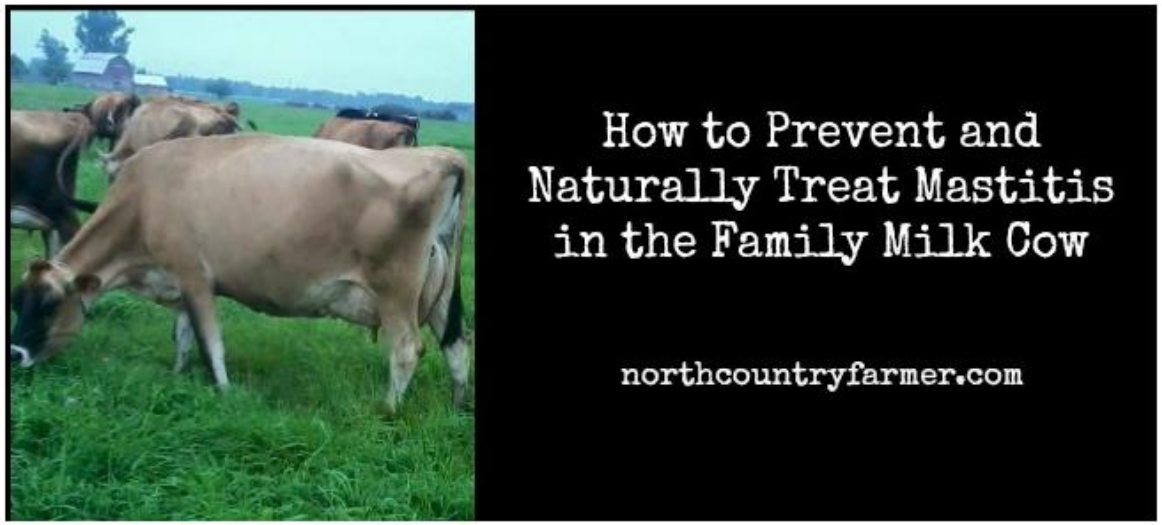
A common belief is that laminitis is a hoof problem but in reality it is a whole body issue which shows up in the hoof. It therefore makes sense that it is increasingly

Group 4

Cow-Mastitis

Find case information from:

http://northcountryfarmer.com/?p=320



dairy cattle livestock Uncategorized

How to Prevent and Naturally Treat Mastitis in the Family Milk Cow

Group 5

Avian- Avian influenza

Find information as follows, or more from web

CASE 2: AVIAN INFLUENZA

Similar to ND, AI is caused by an enveloped RNA virus, but from the Orthomyxoviridae family. It is a type A influenza that is further categorized according to membrane proteins into 15 hemagglutinin (H1 to H15) and 9 neuraminidase (N1 to N9) subtypes. This virus replicates in the respiratory and gastrointestinal systems, with the corresponding clinical signs and modes of shedding. Wild waterfowl are the natural hosts, but other birds and even mammals can become infected. First documented in 1878, AI is clinically classified as having low or high pathogenicity (LPAI or HPAI). LPAI is usually asymptomatic in wild waterfowl but causes mild or even severe disease in domestic poultry. Untreated HPAI in domestic birds approaches 100% mortality.

The last three major antigenic shifts in type A influenza led to the human pandemics of Spanish, Asian, and Hong Kong flu in 1918, 1957, and 1968. Spanish flu was the most devastating of these. It infected 20% to 40% of the world's population, and it took more than 20 million human lives (Hien, 2004).

In 1997, a new strain of HPAI (H5N1) was detected in humans in Hong Kong. Formerly found only in birds in Asia, this strain has lately been reported in wild or domestic fowl in Africa, Eastern and Western Europe, and the Middle East. As of the time of this writing (late February 2006), 91 zoonotic deaths from H5NI have reportedly occurred. Virtually all of these have involved poultry workers who were in direct contact with the nasal, respiratory, or fecal discharges of infected animals. So far, no human-to-human transmission has been definitively confirmed. However, this new, virulent strain has an estimated mortality rate of anywhere between 50% and 72% in directly infected humans. Although this figure is obviously in flux, by comparison, mortality from the Spanish flu was only 2.5%.

Given the possible threat to human health from this new strain of AI, and given that respiratory signs are the more distinctive ones for differential diagnosis of AI, a review of EVM botanicals for preventing or controlling the clinical signs of unspecified respiratory disease in poultry hardly seems amiss. To this end, Table 3-3 documents a wide variety of plants used in EVM in these regards. As with ND, the plant materials are usually administered in the drinking water of flocks.

Three species stand out here in terms of their documentation in both EVM and human (see Table 3-4) medical literature for their promise in combating viral disease.

***Allium sativum* (Garlic)**

Clinically, the constituents of garlic are antiviral to influenza (Yakovlev, 1950) and possibly also beneficial when administered before infection (Nagai, 1973). Fresh garlic is virucidal against herpes simplex virus types 1 and 2 (HSV1 and HSV2), human rhinovirus type 2, parainfluenza 3, *Vaccinia* virus, and vesicular stomatitis virus (Weber, 1992).

Andrographis paniculata

Families in India boil this whole plant in 2 L of water until half the water evaporates. Then, they add 2 handfuls of uncooked, milled rice and leave the mixture to stand overnight. The next morning, it is fed with the flocks' regular food. In vitro and clinical studies indicate that either alone (Thamlikitkul, 1991) or in combination with *Eleutherococcus senticosis* (Melchior, 2000; Spasov, 2004), *A. paniculata* reduces the severity of symptoms associated with respiratory infections in humans—including colds, sinusitis, and influenza (Cáceres, 1999; Glatthaar-Saalmüller, 2001b). Moreover, this plant or its constituents possess activity against hepatitis B (Mehrotra, 1990), human immunodeficiency virus, i.e., HIV (Chang, 1991), and respiratory syncytial virus (Ma, 2002). Also, it has potent antiinflammatory (Panossian, 2002) and immunestimulating (Kumar, 2004) properties. These may

Continued

CASE 2: AVIAN INFLUENZA—cont'd

account for the amelioration of respiratory signs observed in chickens. It is interesting to note that the plant's isolated andrographolide constituents are not as immune stimulating as is the crude extract employed in family poultry enterprises in India (Melchior, 2000).

Nicotiana glauca

Both in vitro and clinical studies show that the aqueous extract of this tobacco plant increased survival of chick embryos infected with influenza virus. Moreover, studies indicate that unlike ostrich and other birds or many mammals, chickens can eat the leaf without experiencing any obvious adverse effects (Watt, 1962).

Turning from these three plants to others listed in Table 3-3, *Heliotropium indicum* has powerful anti-inflammatory properties (Srinivas, 2000), as do *Eryngium foetidum* (Garcia, 1999), *Pimenta racemosa* (Garcia, 2004), and *Zingiber officinale* (Penna, 2003). *Momordica charantia* (Spreafico, 1983), *Trigonella foenum-graecum* (Bin-Hafeez, 2003), and *Zingiber officinale* (Tan, 2004) all exhibit immune-enhancing properties.

The fourth and last table in this chapter (Table 3-4) lists EVM plants from Tables 1-1 and 1-3 that are used for apparent viral diseases of poultry and that share the same genus, or are even the same species, as plants demonstrated to have anti-influenza or antiviral activity in humans.

Among the items in Table 3-4, it should be noted that *Citrus* species contain relatively large quantities of flavonoids such as hesperitin from *Citrus junos,* which significantly inhibits influenza A virus in vitro (Kim, 2001). Hesperidin is also anti-inflammatory (Emim, 1994). *Euphorbia compositum* and *Mahonia aquifolium* both show anti-influenza activity. The latter is also immunomodulatory (Kostalova, 2001), although it has demonstrated no activity against AI in vitro (Sauter, 1989).

Other EVM plants of interest have known antiviral properties, although their anti-influenza activity may remain unknown. For instance, *Curcuma longa* is anti-inflammatory (Joe, 2004); as a feed additive, it improves broiler performance (Al-Sulton, 2003). *Ocimum sanctum* wards against inflammation and, specifically for poultry, the immunosuppressive effects of infectious bursal disease (Godhwani, 1987; Sadekar, 1998b). *O. sanctum* also has other immunomodulatory effects (Mediratta, 2002). *Ocimum gratissimum* is active against HIV (Ayisi, 2004). Various species of *Plantago,* a popular Chinese medicine for infectious diseases, are antiviral or immune stimulating for HSV2, adenovirus, and human respiratory syncytial virus (Chiang, 2002, 2003; Gomez-Flores, 2000; Li, 2004). *Plantago palmata* combats coxsackievirus (Vlietinck, 1995).

Finally, plants reported as having anti-influenza effects for humans merit mention. Even though they may not be referenced in the EVM literature, they may be suggestive for future R&D or application in EVM. A few examples are *Crataegus crus-galli, Euonymus europaeus, Fragaria vesca, Ribes rubrum, Ribes uva-crispa, Sambucus nigra, Solanum nigrum,* and *Viburnum opulus* (Sauter, 1989).