



ALOE VERA

NATURE'S GIFT TO ANIMALS

by David Hark, Veterinary Surgeon

ALOE VERA - a history of medicinal recognition

The complementary medicinal properties of Aloe Vera have been known for some 4,000 years with one of the first references being on an Egyptian temple carving from around 2000 BC. The first mention of Aloe Vera's pharmaceutical properties were recorded on Sumerian clay tablets in 1750 BC. It was around this time in 2100 BC that the art of veterinary science was first mentioned in the laws of Hammurabi.

However, it was not until the 1800s that Aloe Vera first started to be used commonly in the UK for treating the diseases of animals.(1)

In this leaflet David Urch explains the nature of the plant and its properties plus a few examples of its many effective applications in veterinary medicine.

ALOE VERA - the plant



When you first see an Aloe Vera plant you can be forgiven for believing it is a cactus. In fact it is a member of the lily family of which there are some 300 varieties. They originate from Africa and prefer dry conditions. Several varieties have medicinal properties but the one most widely used is Aloe Barbadensis Miller. This Aloe is the one used in the earliest of veterinary preparations and has stood the test of time.

Aloe Vera plants are not fully mature with their complementary medicinal properties until they are four years old and it is therefore important that the gel is not extracted until they reach this age. The medicinal properties which help conditions are found in the inner gel

of the leaf and so whole leaf preparations have to be processed before they can be used. This will affect the medicinal nutrients found in the plant. The most acceptable preparation is therefore one which is based on the stabilised inner gel. Research has shown that stabilised inner gel is essentially identical to fresh inner leaf gel. (2)

PLANT MEDICINAL NUTRIENTS

Over 75 different nutrients have been identified so far from the gel, these are: (3)(4)

LIGNIN: Woody inert substance combined with cellulose which is believed to assist Aloe preparations penetrate to the dermal layer of the skin.

SAPONINS: Natural soapy cleansers with antiseptic properties, that are excellent for cleaning the skin.

ANTHRAQUINONES: The small amounts found in the stabilised inner gel are essential to maintain gut motility, act as antimicrobial agents against certain bacteria, viruses, fungi and yeast's as well as being naturally anti-inflammatory and pain killing.

MINERALS: A number of minerals are present such as calcium, sodium, iron, potassium, chromium, magnesium, zinc, manganese and copper.

VITAMINS: Particularly the antioxidant vitamins A C and E and the B vitamin B12.

AMINO ACIDS: The building blocks for proteins. Twenty two are required by animals and eight have to be included in their diets if deficiency is not to occur. Twenty are found in Aloe Vera including the eight essential.

ENZYMES: These help with the digestion and absorption of food.

SALICYLIC ACID: A natural antiseptic exfoliator which can also help to lower body temperature. It also has anti-inflammatory, analgesic and anti-bacterial properties.

FATTY ACIDS: Plant steroids with anti-inflammatory, analgesic and antiseptic properties.

SUGARS: The mucilage layer of the Aloe Vera plant contains a group of polysaccharide sugars called gluco-mannan. One sugar in this group - **ACEMANNAN** - has been studied in considerable detail by a number of researchers who have discovered it to possess the following properties:

- **Immunomodulating** - helps to return immunity to normal by boosting the level of antibodies through increased B-Lymphocyte activity
- **Antiviral** - has been shown to be effective against certain tumour producing viruses, such as feline leukaemia
- **Reduces secondary infections**
- **T-Lymphocytes** - Can increase the activity of these white blood cells by up to 50%
- **Macrophages** - Can increase the activity of these large white blood cells derived from monocytes leading to increased wound healing

REPUTED ACTIONS OF ALOE VERA

- Synergism
- Adaptation
- Improved 'well being'
- Antioxidant
- Source of essential nutrients
- Skin cleanser and moisturiser
- Penetrates to the dermal layer of the skin
- Exfoliator
- Encourages skin cell division leading to increased wound healing
- Local anaesthetic
- Antimicrobial against certain bacteria, viruses, fungi and yeasts
- Decreases capillary bleeding
- Anti-inflammatory
- Decreases itching
- Lowers temperature
- No detectable side effects
- Few contra indications
- Potentiates the action of some other drugs

(4,5,6,7,8)

SPECIFIC SITES OF ACTION FOR ALOE VERA

A number of researchers (1,3,4,5,6) have concluded that Aloe Vera works on the epithelial tissues and the immune system to produce its beneficial effects. This is why it appears to help with conditions affecting a number of apparently unrelated bodily systems such as:

- THE SKIN
- THE DIGESTIVE SYSTEM
- THE RESPIRATORY SYSTEM

THE TYPE OF ALOE VERA TO USE

In deciding on your choice of Aloe Vera preparation, there are a number of important points to consider in that it should be:

- ORGANICALLY GROWN
- DERIVED FROM PLANTS AT LEAST 4 YEARS OLD
- FILLETED AND UNADULTERATED

TIPS ON USING ALOE VERA PREPARATIONS

- Introduce slowly.
For animals with sensitive digestive conditions start on a low amount of the oral Aloe Vera gel for a couple of days and then slowly increase to the beneficial level. The amount required depends as much on the weight of the animal as the condition you are trying to help.
- Can be added to the food or water or be given directly by mouth.
- Skin problems benefit from the oral Aloe Vera as well as the topical preparations.
- A few skin problems look worse before they improve. This is often referred to as the healing crisis. If in doubt consult your vet.
- Always take advice from a vet before using any form of complementary preparation.

(4,5,6,7,8)

ALOE VERA IN VETERINARY PRACTICE

Aloe Vera can be used by the owner of an animal as a complementary medicinal herb to help a previously diagnosed condition or as a first aid treatment whilst waiting to see a veterinary surgeon. In practice the Aloe Vera used must be filleted and cold stabilised so that it contains mainly parenchymatous gel from the inner leaf of the plant.

SKIN PROBLEMS

Aloe Vera is an excellent preparation to use for skin conditions such as allergies, eczema, abscesses, fungal infections, pyoderma and many types of dermatitis. The oral gel can be given in the food and the topical preparations applied directly to the skin. The Aloe Vera will help to decrease the inflammation and itching as well as helping to remove dead cells and discharges. It will also encourage a suitable environment for the replication of skin cells so that wounds tend to heal quickly. Remember, Aloe Vera has little effect on skin parasites such as fleas, mites and lice so consult your vet if these are a problem.

Important points when using Aloe Vera to help skin problems:

- Always consult a veterinary surgeon - self diagnosis can be dangerous.
- Ensure that the cause is always identified and eliminated.
- Do not over wash areas of skin because this can make the condition worse by removing natural oils and damaging epithelial cells.
- Sometimes it is necessary to remove the hair over an infected area by clipping.
- Apply the topical Aloe Vera preparations 4-6 times daily initially, then twice daily as the condition improves. The most beneficial results are achieved by first spraying the area with a solution of Aloe Vera and then applying Aloe Vera Gelly.
- Give oral Aloe Vera Gel.
- On the rare occasion when the 'healing crisis' occurs, change from the Gelly to the Aloe Vera Propolis creme. If it still persists then consult your vet.

WOUNDS and BURNS

These respond particularly well to Aloe Vera. For a wound or burn to heal effectively it must be kept clean and moist with a supply of nutrients. It will also require air and may need protecting. Any dressings used must not damage the new epithelial cells when removed. Aloe Vera can provide all these requirements due to its previously described properties.

With minor burns first cool the area by running cold water over it. The area should then be sprayed with Aloe Vera solution before the frequent application of Aloe Vera Gelly. In cases of severe burns these should be referred immediately to your veterinary surgeon for supportive treatment which can be backed up by Aloe Vera preparations.

Most wounds can be treated in the same way as for skin conditions but some will require veterinary attention.

DIGESTIVE SYSTEM PROBLEMS

Aloe Vera can prove very beneficial in helping conditions of the digestive system particularly where inflammation is involved. Conditions such as stomatitis, gingivitis and oral ulceration can all be helped using Aloe Vera. The most useful preparations for use in the mouth are spray solutions and gelly. Potentially more serious conditions such as vomiting and diarrhoea also often respond to oral administration of Aloe Vera Gel and starvation followed by bland diets. It is important to remember that if either of these conditions persist then veterinary advice must be taken.

IMMUNOLOGICAL SYSTEM PROBLEMS

A number of diseases affecting animals have their origins within the immune system. The most common ones are asthma, hay fever, rhinitis, rheumatoid arthritis, post viral lethargy syndrome (ME/Chronic Fatigue Syndrome), lupus and allergies (which can affect the digestive and respiratory systems as well as the skin). The oral administration of Aloe Vera can be useful in cases of chronic immunological problems through its immuno-modulating properties discussed earlier.

EAR AND EYE CONDITIONS

The commonest ear condition seen in practice is otitis externa where infection and inflammation develop in the vertical and horizontal ear canals. These are often mixed infections of mites, bacteria, fungi and yeasts and may involve foreign bodies such as grass seeds. Aloe Vera solution, Gelly and those combined with Bee Propolis can be very useful in treating this condition. Always ensure that the ear has been examined by a vet to avoid missing causes such as grass seeds and tumours.

Eye conditions are potentially more serious and must always be examined by a vet before any form of complementary preparation is used. In my veterinary practice I use a dilute solution of Aloe Vera in cases of conjunctivitis and keratitis. I find this helps soothe the inflammation and reduce infection.

ABOUT THE AUTHOR

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His first degree was a Bachelor of Science (BSc) in physiology and nutrition from the University of Leeds in 1975. This was followed by a Master of Arts (MA) in the medical sciences tripos from the University of Cambridge in 1977 completing his veterinary degree at Cambridge in 1980. He initially worked in a mixed practice in Somerset for two years, treating all types of animals from dogs and cats, to cows and horses. It was here that he became interested in complementary medicine and the holistic approach. In 1982 he established his own practice, along side which he runs a mixed farm where he also breeds competition horses. He started using Aloe Vera on his patients in 1996 and wrote a book on his findings in 1999. He currently spends much of his time lecturing throughout the world to both the general public and veterinary professionals on the benefits of Aloe Vera to animals.

For more detailed and extensive reading of Aloe Vera in veterinary practice see '*Aloe Vera Nature's Gift*' by David Urch

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Complementary medicinal herbs such as Aloe Vera should be used not as an alternative to traditional medicines but as an additional preparation in an integrated way along side orthodox drugs. Aloe Vera is not the cure all it was once thought to be but used selectively it is a very beneficial herb for many conditions involving epithelial tissues and the immune system.

It is vitally important that animal owners seek veterinary advice to ensure the correct diagnosis is made and the most beneficial treatment selected. Owners must never alter or stop medicines prescribed by their Veterinary Surgeon without first consulting them.

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