CAPE ALOE

Aloe ferox, commonly known as the bitter aloe or Cape Aloe, is a polymorphic aloe species indigenous to South Africa. Aloe ferox has been used since ancient times and has a well-documented history of use as medicine.

The bitter latex, known as Cape Aloe, is used as laxative medicine in Africa and Europe and is considered to have bitter tonic, anti-oxidant, anti-inflammatory, antimicrobial, and anticancer properties.

The active ingredients belong to different classes such as polysaccharides, alkaloids, anthraquinones, saccharides, enzymes, amino acids, inorganic mineral. Anthrone-C-glycosides are considered typical of aloe bitters and are represented by aloin A and B, and are mainly responsible for the bitter and purgative properties.

Aloe Ferox vs Aloe Vera

Aloe Ferox gel differs substantially from that of Aloe Vera. A report indicated that 14 distinct polysaccharide entities were distinguished from the gel of A. ferox from Aloe Vera. In addition, nitrogen analysis of leaf extracts revealed that the amino acid asparagine was the most abundant, followed by glutamine, alanine and histidine.

Aloe Ferox as a laxative

The constipation is the most common gastrointestinal disorder and it is considered a risk factor for colorectal cancer. Since it is not the most comfortable topic to talk about, it is frequently overlooked and left unaddressed.

Cape Aloe is widely used for its potent laxative and cathartic effects which are attributed to anthraquinones and in particular to aloe emodin.

The anthrone- C- glycosides (aloin A and B) are considered stable in the stomach which protects them from breakdown in the intestine before they reach their site of action in the colon and rectum.

Once they have reached the large intestine the glycosides behave like prodrugs, liberating (through bacterial breakdown, particularly Eucobacterium sp) the aglycones – Aloe emodin, that act as the laxative trough to several mechanisms[1]:

Aloe-emodin possibly exerts its action by disturbing the equilibrium between the absorption of water from the intestinal lumen via an active sodium transport, and the secretion of water into the lumen by a prostaglandin-dependent mechanism (increased water volume into the intestine). This way, aloe emodin stimulates colonic motility without stimulating colonic muscle directly like other stimulant laxatives.

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Augment the propulsion and accelerate colonic transit. Consequently, this reduces fluid absorption from fecal mass. This water content makes stool softer and easier to pass.

It increases paracellular permeability across the colonic mucosa by inhibition of (Na++K+)-ATPase, which again results in an increase in the water content in the large intestine. These help the colon retain more water, increasing the frequency of bowel movements and exhibiting mechanism of osmotic laxative.

This is a very unique natural constipation relief product with multiple mechanisms of actions. By stimulating the bowel movement indirectly, it is considered non addictive and suitable for occasional constipation.

Dose	Max Dose
It is recommended to start with one capsule with water, before bedtime. Patient should have bowel movement in the morning. It is not uncommon to have several BM at the beginning of treatment, due to past irregularity.	The dose can be increased up to maximum 3 capsules, taken as a single dose before bedtime. These are very rare cases that require more than one capsule for a treatment.

PRECAUTIONS:

Due to lack of studies in special populations, it is not recommended to take Cape Aloe capsules if pregnant, lactating or in children.

SIDE EFFECTS:

Possible allergic reaction to aloe compounds in history of specific allergies: it is not recommended to use if diarrhea occurs, the treatment should be discontinued.

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Other potential use and scientific researches

Bitter digestive

Cape Aloe is traditionally a component of Lewensessens (a bitter digestive tonic with a long history in South Africa) and more recently of ‘Swedish bitters’, originating in Sweden but also popular in Germany.

It is well known that bitter tasting plants are traditionally used for treating dyspepsia.

Aloe Ferox resin increased GIT motility at 30 minutes interval when compared to control group.[1]

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Potent anti-oxidant activity

Aloe F has been reported to possess strong antioxidant activities due to ability to adsorb, quench free radicals and decompose peroxides generated in the system[2] and consequently may show promise in alleviating symptoms associated with/or in the prevention of cardiovascular disease, cancer, neurodegeneration, diabetes and other conditions associated with oxidative processes[3-4] A. ferox whole leaf extracts showed the reductive capabilities comparable with ascorbic acid and BHT and superior anti-oxidant activity compared to green tea and grape seed extracts.[5]
Most antioxidant activities depend on the amount of the phytochemicals present in the plants. However, it is known that phytochemicals in whole leaf extract of A. Ferox, synergistically boost the antioxidant activity, thus the plant itself had potent antioxidant properties.[6]

Antimicrobial activity

In traditional medicine, especially at Eastern Cape Province of South Africa, it is widely used for the treatment of various infection diseases. In some studies, Aloe emodin and aloin A showed inhibitory activity against all the test organisms (Bacillus cereus, B. subtilis, Staphylococcus aureus, S. epidermidis, Escherichiacoli, Shigella sonnei)[7].
Some studies reported unspecified antifungal activity of A. ferox 'juice' against Trichophyton spp. causing athlete's foot and thrush.[8]

Anti-inflammatory

Various species of aloe, including A. ferox and the compounds extracted from it, are listed in a medicinal formulation patent intended to treat various ailments such as arthritis, minor wounds and sport injuries due to topical analgesic and counter-irritant and anti-inflammatory effects.[9]

Antiparasitic activity

The crude aqueous extract of A. ferox was investigated for its in vitro anthelmintic activity on the egg and larvae of the nematode parasite Haemonchus contortus. Aloe ferox extracts exhibited 100% egg hatch inhibition at 20 mg/ml and larval development inhibition at 2.5 mg/ml and higher.[10]

Skin and wound healing properties

Traditionally the leaves and roots of A. ferox are applied topically, sometimes mixed with animal fat, or taken internally to treat eczema, dermatitis and acne. It is also used to treat various other skin diseases or conditions such as skin cancer, burns and psoriasis.[11-12]

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A food product containing aloe has been suggested in a patent application concerning orally administered compositions meant to hydrate the skin from within as part of the consumers diet.[13]

Anti-aging effect

It is well documented that aloe resin promotes anti-aging effect by restoring immune function in UV damaged cells.[14]

Anti-cancer activity

Aloe emodin has been reported to have selective activity against neuroectodermal tumours, with practically no effect on normal cells.[15]

Other study[16] demonstrated the inhibitory effect of aloe emodin on the activation of Epstein–Barr virus (which plays a role in the emergence of cancer).

The combined effect of aloe emodin and the chemotherapeutic agent cisplatinol (doxorubicin, 5-fluorouracil) on the proliferation of an adhering variant cell line of Merkel cell carcinoma has also been demonstrated.[17]

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