

**ISSUE 15**  
**PRICE £2.50**

**ALOE VERA**  
**INFORMATION SERVICE**

# ALOE VERA

## **Aloe Vera and the Four A's Arthritis, Atheroma, Angina and Asthma**

By Dr. Lawrence G. Plaskett B.A., Ph.D., C.Chem., F.R.I.C.

It has not been widely appreciated that Aloe vera can make a significant contribution to the treatment of these four common and serious complaints. These four illnesses make an enormous contribution to human

misery. The evidence that Aloe can help comes in part from laboratory work and in part from human clinical studies. This evidence is assembled and reviewed in this newsletter.



**BIOMEDICAL INFORMATION SERVICES LTD**

Three Quoins House, Trelvallet, Egloskerry, Launceston, Cornwall. PL15 8SJ

# ALOE VERA AND THE FOUR A's: ARTHRITIS • ATHEROMA • ANGINA • ASTHMA

## The State of Research

There are some diseases for which the strictest scientific proof of the efficacy of *Aloe vera* is not yet available and full lists of laboratory and medical trials cannot be provided. In a good many of these cases there are really strong indications, however, from one or just a few scientific papers, that *Aloe vera* offers considerable help for the condition. In this Newsletter four very common serious complaints are singled out from among the list of such conditions for a review of the evidence, one at a time. They are, Arthritis, Atheroma (i.e. Arterial Disease), Angina and Asthma. Given rather positive results from the work that has been done, the reasons for the lack of continuing investigations must be sought in the reluctance on the part of those bodies which fund medical research to provide funds for projects which have any kind of an "Alternative" flavour about them.

## Arthritis

Arthritis has to be considered against a background of positive effects frequently reported by individuals and by numbers of alternative Practitioners who use *Aloe vera* for this purpose with substantial numbers of patients. It is also inherently likely that there will be a positive effect with arthritis because of its strong and well recognised anti-inflammatory property. Arthritis is regularly treated in orthodox medicine with anti-inflammatory drugs, either

steroids or non-steroidal anti-inflammatories. This is an approach which is generally anathema to Alternative Practitioners on account of the very suppressive qualities of these drugs and the fact that the non-steroidal anti-inflammatories are generally non-biological molecules with potentially toxic, as well as suppressive qualities. The role of the non-steroidal anti-



inflammatories in encouraging gastric ulceration is well known and Bland has pointed out that they also increase the permeability of the intestinal wall, thereby most probably exacerbating the immunological problems which lay at the basis of rheumatoid arthritis. These drugs therefore receive, and probably deserve, the criticism of holistic practitioners, for providing only relief from the condition, of a kind that offers absolutely no approach towards cure, and which carries the very highest price because the progress of the disease process is accelerated. By contrast the anti-inflammatory properties of *Aloe vera* carry no known penalties. The anti-inflammatory effects are probably only providing a relief from the condition, but there is no price to pay in terms of non-biological potentially toxic molecules, and the underlying disease is not made worse. Meanwhile, the healing and immune effects of *Aloe vera* have the potential to arrest or reverse certain important aspects of the disease process itself.

One of the most important things to appreciate about arthritis is that when the joint damage becomes severe, it cannot be wholly repaired even when the further progress of the disease has been stopped. It is therefore very key to treat this condition very early on if possible.

*Aloe vera* is on record as being effective against arthritis in the work of alternative practitioners. An example appears in "Positive Health", Issue 20, 1997, in which an article states, after recommending combined topical and internal application, "The degree of success with this treatment varies considerably from person to person. With some, relief and improved joint flexibility is virtually immediate – an apparent 'magical cure', whereas in others the process can take much longer and the degree of recovery may not be so great". Most holistic practitioners who use *Aloe vera* have had several arthritis patients who exhibit very rapid and virtually full recovery with the treatment.

In the work of Davis, Shapiro & Agnew (1985) injected *Aloe* (150mg/kilo) was found to bring about a 72% inhibition of arthritic symptoms in rats. The significance of the work is limited by the fact that this was animal (not human) arthritis (as in all of these Newsletters, the author does not comment upon but dissociates himself from the ethics, or the lack of them, in these animal experiments). The

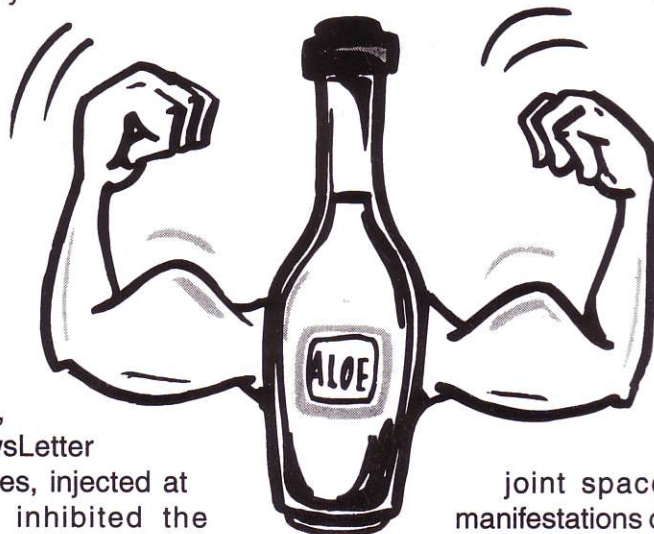
significance of the work was also reduced because the arthritis studied was not a spontaneous chronic illness, but arthritis specially induced by the experimenters for the purpose of the investigation (adjuvant-induced arthritis). Nonetheless, this is the most directly relevant work which is presently available on the application of Aloe to arthritis and the result was quite strongly positive.

It should be noted that the Aloe used in the work of Davis, Shapiro & Agnew (1985) was whole leaf Aloe, not Gel, the authors pointing out that "therapeutic properties have been found in the pulp and the rind". It is clear that they specifically preferred to have all the components of the rind present in their preparation. The fact is that the Gel may offer the highest concentration of the high molecular weight fraction of Aloe, but the Whole Leaf Extract, which in any case includes the Gel, also contains very valuable components from the rind which are especially important in the anti-inflammatory actions.

In the work of Davis, Agnew, & Shapiro (1986), (adjuvant-induced) arthritis was again studied. This further work focused upon one of the special low molecular weight components of the rind, namely, anthraquinones. (See NewsLetter No. 14). The anthraquinones, injected at the rate of 150mg/kg, inhibited the development of the arthritis by 67.3%, and a convincing demonstration of the efficacy of this particular component of Aloe rind, again suggesting that Whole Leaf Aloe which includes some anthraquinone may well be the most efficacious Aloe preparation for treating arthritis. This also amounts to a wry comment upon current UK legislation, which severely restricts the amount of Aloin (an anthraquinone) in Aloe products. This is done, no doubt, with the idea of making sure that Aloe juices and extracts supplied to the public will not have laxative properties. However, in restricting Aloin too severely (far more severely than is required to avoid laxative effect) the UK legislation may be applying an unnecessary restriction to a component which can be quite efficacious in treatment.

Reference is also made here to the very good report by Dr J. Bland on "Effect of Orally Consumed Aloe Vera Juice on Gastro-intestinal Function in Normal

Humans", which was quoted extensively in the Issue on Aloe and the Human Digestive System (Issue 3). This is because Dr Bland makes a specific reference in that article to arthritis. The connections between digestive troubles and arthritis are quite well known. Rheumatoid arthritis is an auto-immune condition (i.e. a condition in which the immune system produces auto-antibodies against antigens within the body itself, especially antigens from the tissues of the joints. Dr Bland says "It is known from the work of Dr Hemmings that incomplete protein breakdown products from such reactive foods as gluten or casein from milk can be transported through the "leaky" gastrointestinal mucosa into systemic circulation and initiate either antibody-antigen reactions in systemic circulation which can aggravate the symptoms of arthritis or may participate in direct antigen assault upon the gastrointestinal mucosa increasing risk to inflammatory bowel disorders". It therefore follows



that the use of Aloe vera to improve digestive function may be successful in increasing protein breakdown and interrupting the aggravating sequence of events referred to by Dr. Hemmings. Then again Dr Bland writes of "These complexes (antigen-antibody complexes) can be trapped in the liver and joint spaces and have the clinical manifestations of pain and edema. This may explain why Rasmussen and his colleagues have found that a dietary fast can be helpful in reducing the symptoms of arthritis stricken patients."

It is the opinion of this Service that arthritis could reasonably be treated with from 40 to 60 ml per day of an Aloe Whole Leaf Extract having a content of Aloe solids of from 2 to 3%. Other dietary and nutritional measures suitable for arthritis could well be used in addition since, as explained in Issue No. 13 of these NewLetters, Aloe does not work primarily through providing nutrients.

Atheroma and Angina

The term "atheroma" applies to deterioration of the arterial wall accompanied by a deposition of lipid material and calcium, producing a "plaque" on the interior surface of the wall. The plaque is a damaged, and therefore, roughened area of the wall. The interior surface of the arteries should normally be extremely smooth as this both facilitates