

Aloe in Dentistry

By James Harrison, D.D.S., F.A.G.D.

Post-treatment dental discomfort and pain are among the most unpleasant forms of misery we humans inflict upon ourselves. In providing relief from this, the blessed Aloe plant displays yet another example of Heavenly mercy.

This story started for me on a weekend in July of 1991. Dr. Bruce Hedendal gave me a bottle of "Whole leaf" Aloe vera concentrate. He said that a report by Lee Ritter, N.D., showed that all Aloes were not equal. In fact some had no active ingredients whatsoever.

I had been using an Aloe product, which cost approximately \$23.00 a gallon, for the past six months, but had not noticed any particular benefit. I was using it simply because I had heard of Aloe's legendary benefits. The bottle said, "100% pure, tastes like spring water," and according to the Ritter report, it was water. I was skeptical that this whole leaf Aloe product would produce any more noticeable benefits than before, but that is what this article is about.

Within two days of using the products, I noticed a tremendous increase in energy. I had been riding a hypoglycemic roller coaster for years, fueling up on caffeine and sugar to climb out of the slumps, only to find myself in another some hours later. That first week, I felt good, but I really was not paying attention to it. It was approximately two weeks into using the new Aloe that I noticed that I was thinner. Because my weight had been creeping up, I had been avoiding the scale; but that morning I had to check it out. To my surprise, I was a full five pounds lighter. It was only then that I realized why I had lost the weight. I was no longer feeding with sugar and caffeine the roller coaster slumps, but I was cruising nicely along near the top.

I had been using the Aloe on my forehead, which had many patches of recurrent actinic keratosis, a pre-cancerous condition, which had in the past been removed with cryotherapy (liquid nitrogen). It took a month of using the concentrate, but these patches have gone into remission.

I have been an allergy sufferer my entire life, but the situation had been getting progressively worse over the last five years. When I first started using the new whole leaf Aloe the allergy symptoms got much worse, but then they started to clear. I have had a few bad days over the past five months, but generally I am greatly improved.

I have also experienced another benefit worth mentioning. I have suffered with a painful shoulder for two years. The pain is gone. During this time, I mentioned these benefits to others, who also started using these products, and they reported back (in most cases) equally enthusiastic stories.

The next two incidents encouraged me to introduce the products into my practice of dentistry. The first was when a four year old boy fell onto some sharp oyster shells and cut his foot open. I reached him

first and covered his wound with 5X Aloe gel. He stopped crying within seconds. It was a deep cut. We cleaned and bandaged it with an Aloe dressing and he was out playing in minutes.

The second incident was in my dental practice. The patient needed his wisdom tooth extracted, and while the site was getting numb we talked about Aloe. He said his wife's grandmother had married a Native American back in the thirties and had used Aloe ever since. He reported that she is now ninety-seven years old, looks like she is fifty, and acts like she is forty. He suggested that we try Aloe on his wound. I irrigated the socket with the whole leaf Aloe concentrate, and after the sutures were in place, I filled the socket with the 5X Aloe gel. That evening I called to see how the patient was doing. His comments were that "if his tongue didn't feel the space he would not be aware that anything had happened." He continued to apply Aloe for that week and when it came time to remove the sutures, the area appeared pink and healed over. I was quite impressed.

We have since used the Aloe for all surgeries with uniformly gratifying results. One person among many, Mr. Harold Gans, wrote, "I suppose it is unusual for a patient to tell a dentist that he feels he had not even been treated by him. I honestly feel as if I had not been in your chair. I never felt any pain at any time, nor any discomfort after leaving your office..."

What makes that letter so rewarding is that we worked on Mr. Gans for two plus hours, removing numerous teeth, performing bone recontouring, and inserting an upper immediate denture. The check-up the next day showed some mild hematomas, but little swelling. The tissue was a healthy pink. I have not had to prescribe pain medication, except for one very drug-oriented patient, in four months.

I hope these anecdotal stories have piqued your interest to read further, because I have some ideas about what may be happening.

Why Aloe May Work

Carrington Laboratories, Inc., has been trying to gain FDA approval for the use of acemannan as a drug. Acemannan is the name given to the large molecular-weight sugars called mucopolysaccharides that are found in Aloe. They assert that this is the "active" ingredient and have spent considerable time and money doing in-vitro and in-vivo research. Their work has shown that Aloe interacts with the body's immune system, enhancing rather than overriding this system. It stimulates the macrophages, one of the principal immune response steering mechanisms of the body. These studies have shown direct anti-viral activity. On November 4, 1991, Carrington announced that conditional approval was granted by the USDA for the use of Acemannan as an aid in the treatment of canine and feline fibrosarcoma. Although this is an isolate of the plant and may represent only a small fraction of its active ingredients, it is a large step forward and may open the door for Aloe to gain approval for other uses.

Trevor Lyons, B.D.S., L.D.S., R.M., a Canadian dentist, deserves recognition as a true pioneer in our quest for the solutions to periodontal disease, as well as the systemic manifestations resulting from this infection. His book, *Introduction to Protozoa and Fungi in Periodontal Infections*, is a masterpiece of literature review and original research.

There are many thought-provoking ideas presented that will provide answers to many puzzling questions. His basic premise is that one-celled animals, protozoa such as *Entamoeba gingivalis*, *Entamoeba histolytica*, *Trichomonas tenax*, are not opportunistic, but, in fact, precede the host's oral and systemic declines (Lyons, p. 15). Equally important in oral and systemic pathology are the fungi most notably *Candida albicans*. Again, rather than being opportunistic, these fungi actually suppress the host's immune system, are capable of causing death, and have been shown to be distributed throughout all of the host's organs upon autopsy.

Yeasts and trophozoites, contrary to what was previously believed, do not appear to be normal inhabitants of the mouth. They are associated with oral and/or systemic disease, and if left untreated in an apparently symptomless host, will lead to the deterioration of the oral and general health of the patient (Lyons, p 73, p. 15).

Dr. Lyons, through meticulous and step-by-step development of his theory, proves that these heretofore accepted, "normal" inhabitants should be our target organisms in the treatment of many oral and systemic diseases. He has documented and published proof that the elimination of those parasites restores the host to a state of well being.

Another forward-thinking holistic dentist, Dr. Douglas Cook, from Surfing, WI, read between the lines of Dr. Lyons' work and gleaned the idea of why the Aloe is so effective on so many people. In an interview with Dr. Lyons, he confirmed this information. **Aloe vera is one of the most potent protozoa and yeast-killing solutions that he had ever worked with.** However, Dr. Lyons did not have at his disposal, nor did he know about, these new, highly concentrated whole leaf Aloe solutions. Most of Dr. Lyons' successes, which are monumental, were produced using traditional allopathic medicine. Many of these medicaments used are highly toxic to the host, as well as the target organisms. Possibly, nature has provided the perfect solution to this parasite problem: Aloe vera.

In 1929, Kofoid reported finding *Entamoeba* in the bone marrow of some arthritic subjects. In 1981, Snyderman and McCarty reported similar pathology in rheumatoid arthritis and destructive periodontal disease. In 1982, Dr. Paul Keys, the former head of dental research at the United States National Institute of Health, reported the almost invariable relationship between oral protozoa and periodontal deterioration. *E. gingivalis* found at the base of periodontal pockets and *E. histolytica* found in ulcers of the colon (Lyons, p. 28) behave similarly, causing the lesion to spread laterally as the amoebae migrate parallel to the floor of the ulcer.

Could these one-celled animals really be that destructive? R. Mueller, in 1988, reported a new theory of enzyme destruction. Polymorphs produce a proteolytic (protein-digesting) enzyme, "elastase" which is normally bound to a circulating liver enzyme, "proteinase inhibitor" forming "elastase proteinase inhibitor complex" (EPIC). The leukocytes are disrupted by the contact with amoebae leaving the leukocytes in an uncontrolled state of maximum production and release of elastase. The EPIC balance becomes overpowered, leading to rapid, uncontrolled, lytic activity. This concept fits well with the understanding that destructive periodontal disease may be considered an autoimmune disease (Genco and Mergenhausen, 1982) and shows that "the supreme irony of this state of parasitism is that the very cells which should protect the host in fact destroy the host and are then, in turn, consumed by this predator parasite, *Entamoeba gingivalis*." (Lyons, p. 34)

These parasites also are capable of being infected with a virus. From within this safe harbor protected from the patient's immune response, a continuous stream of pathogenic particles could eventually destroy the host. Could this be the reason why Epstein-Barr and HIV patients are helped with Aloe? Does the Aloe destroy the virus' hideout? Whatever research eventually shows, the destruction of these one-celled invaders will leave the host with a stronger immune system.

Many dentists have been dismayed over the rampant decay in the cervical areas of some of their patients' teeth. These lesions tend to rapidly spread along and below the gingival margin. Within just a few months this mostly painless destruction may render the tooth unsalvageable. Dr. Lyons has shown that this rapid decay is caused by *Candida*, which is capable of both aerobic and anaerobic metabolism.

Antibiotics and antifungals have proven effective if the right ones at the right times are used. Reports from the literature show that neither *E. gingivalis* nor *E. histolytica* is capable of initiating infection without the concomitant presence of bacteria (Levine, 1973, p. 147; Grollman & Grollman, 1970, p. 649). And, while antibiotic therapy may be cidal to trophozoites, it may be working due to the change in the bacterial environment.

Aloe, on the other hand, non-toxic to the host, has been reported (in anecdotal stories) effective in the treatment of most digestive and gastrointestinal problems, arthritis, skin lesions, multiple sclerosis, diabetes, and periodontal disease, etc.! Could it be that Dr. Lyons, who first recorded the destruction of the protozoa with Aloe vera, may have found the reason why Aloe appears to be so effective with so many different problems?

Use of Whole-Leaf Aloe

It has been my finding, as well as Dr. Lyons' and Dr. Cook's, that the use of topical antimicrobial therapy, although helpful, should be combined with systemic treatment.

A therapeutic dose of mucopolysaccharides of 15 mg/kg has been established as virucidal. To my knowledge, no amoebacidal dose has yet been established, but working on the 15 mg/kg dose per day, approximately two ounces of the concentrate per day should be effective for the average adult. It is important to take part of the dose before bed, preferably on an empty stomach, since the parasites are particularly active at night (Lyons, p. 26).

It is very important to keep the dose within acceptable ranges, so that the “kill” does not produce a flood of toxins, antigens, viruses and viroid particles, which are released into the body upon the parasites’ death and disintegration. This is called the Herxheimer Reaction, and will vary depending on the nature and quality of the material released and the host’s (patient’s) tolerance to those foreign substances. If this reaction becomes severe, it is best to discontinue the Aloe and work on other detoxification programs such as colonics and diet changes, etc.

The best way to start on an oral disinfection program would be to purchase a good soft-bristled toothbrush. Dr. Phillips has developed a baby-soft brush and a technique quite effective in removing plaque and stimulating the tissue. You may purchase these items from Periodontal Health Brush, Inc.

As your dentifrice, the 5X AloeGel works to clean the gums and gently kill the pathogens. If you use an oral irrigation machine, mixing a couple of tablespoons of Aloe concentrate into the water will help kill the pathogens living at the bottom of the pockets. Homozon, a magnesium oxide powder, which releases oxygen in the presence of acid, can be used as a dentifrice or a packing on the gums, then followed with the Aloe. Don’t forget to brush your tongue and be gentle with the floss.

It is best to institute a program of oral disinfection prior to rigorous scaling and curettage, due to the potential spread of protozoa and yeast throughout the body through the open blood vessels abounding in the infected gums.

Hopefully, as research catches up with these ideas, we will learn how and why Aloe is so effective in helping our bodies heal themselves. I, for one, see the need for more in office diagnosis of specific pathogens, based on the use of the phase-contrast microscope, as well as the incorporation of a program for heavy metal detoxification.

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