

## **An Introduction to Bee Venom Therapy**

by Charles Mraz June 5, 1981

*Editor's note: The classic book, Bee Venom Therapy: Bee Venom, Its Nature, and Its Effect on Arthritic and Rheumatoid Conditions, by Bodog F. Beck, M.D. (New York/London: D. Appleton-Century Company Inc, 1935), was reprinted in 1981. For that reprint Charles Mraz wrote a foreword, which continues to serve as an introduction to bee venom therapy. We are pleased to produce it here.*

It is almost 50 years since Dr. Bodog F. Beck wrote the classic book, *Bee Venom Therapy*. This book is still the best text on the subject. With recent renewed interest in bee venom therapy for the treatment of rheumatic diseases, there has been a great demand for this book. Few copies have been printed of the original edition, and the book is now scarce.

Dr. Beck was born in Budapest, Hungary, in 1871 and died in Kingston, New York, in 1942. He was for many years on the staff of St. Mark's Hospital. He practiced his main interest in medicine, bee venom therapy, at his office on 116 East 58th Street in New York City. He was also a great advocate in the use of honey and wrote another classic book, *Honey and Your Health*, in 1938.

I first met Dr. Beck in 1935, soon after I became interested in bee venom therapy following a personal experience with a bad case of rheumatic fever. Once I had heard about him, I visited him at his office many times.

In many ways, Dr. Beck was a most remarkable man, in both intelligence and appearance. He was stocky, with a precise military bearing, perhaps from his military days in the Austro-Hungarian Army. His hair was crew cut, and a large, sweeping mustache gave him the appearance of von Hindenburg, commander of the German Army during World War I.

His knowledge of languages was phenomenal, as can be seen from his books. He had a large library of books on bees and beekeeping from all over the world and in many languages; most of them he could read in the original. He had many Napoleonic artifacts with the emblem of the honeybee that Napoleon used in his decorations. Bees became a true scientific study with Dr. Beck ever since he kept bees as a boy in Hungary.

During the 1930s, when I knew him, there was a great deal of attention paid to bee venom therapy in Europe, especially in Germany and Austria, as well as some interest in the U.S. At this time there was much interest in producing an injectable bee venom solution that could be administered with an injection needle rather than with a live bee. Some of the solutions produced at the time were "Apiven," "Venapis," "Lyovac," and "Imminin." Most of these solutions were not as effective as the live bee, and after giving them a trial Dr. Beck stopped using them. At that time there was no technique for collecting the pure venom, and most methods removed the venom glands from the bee, from which the venom was "washed out" and "purified" by various techniques. This process degraded the venom so that its effect was not equal to that of the live bee.

One of the first duties I assumed when I met Dr. Beck was to take charge of his beehive on the window sill of his office. He had a five-frame hive, covered with a wire screen. The bees had an entrance through the window so they could fly outside and gather a surprising amount of honey from Central Park during the spring and summer months. He had a small metal door on the screen which could be opened easily and the bees removed with long forceps and the bee applied to the patient's affected areas. This created a perpetual supply of a "self-activated, self-contained, sterile hypodermic needle." With years of practice he became skillful with this method of treatment.

During the 1930s some doctors spent time with Dr. Beck learning his method for treating these rheumatic diseases with the live bee. They are Dr. Raymond L. Carey of California and Dr. P.H. O'Connell of Connecticut. There may have been others, but as far as I know, only these two doctors used bee venom therapy for many years with great success after Dr. Beck. They are now in their 80s,

retired, and no longer practicing. I had the good fortune to know both of them, and I worked with them on the bee venom therapy program.

This made me familiar with Dr. Beck's method of treatment, what I have observed from Dr. Beck himself and from his two students who followed in his footsteps. For many years Dr. Beck, like many doctors before and after him, tried to have bee venom therapy recognized by the medical profession, but without success. As with Dr. Anton Terc, of Marburg, Austria, the "father" of bee venom therapy over 100 years ago, they failed to create any interest in bee venom's acceptance in medical practice.

Dr. Beck's method of treatment with the live bees was very much like the method used by Dr. Carey for many years. Basically, the areas with arthritic symptoms were treated, as were the areas of the spine. The upper and lower spine were considered the "foundation" of the treatment to produce the best systemic effect. Treating the local areas produced good local effects.

The number of treatments varied, depending on the severity of the disease. Acute cases required but a few times and a short treatment. More chronic cases required many more treatments over a longer time. The usual course of treatment was to apply the bees every other day for three times a week over the affected areas, in rotation.

As with Dr. Terc, Dr. Beck laid great emphasis on the "reactive stage" of the treatment. Usually after a week or two of treatments, the treated areas would swell with inflammation, heat, and itching—perhaps as much as six inches in diameter. During this reactive stage the patient often felt worse and would become greatly discouraged about the treatment. In this book Dr. Beck describes this reactive stage very well, with a graph. As with everyone who has experience with bee venom therapy, we realized that the reactive stage is the most important part of the treatment. It is this reaction of the body to the bee venom that produces the greatest therapeutic effect. We now know that bee venom stimulates the immune and protective systems of the body. Dr. Terc stressed this same act, long before the recent interest in "immunotherapy" as a treatment for degenerative diseases.

I remember well how upset Dr. Beck would become when he heard of or read reports of doctors who tried bee venom therapy but discontinued it because of "bad reactions." To this day one of the most difficult problems with bee venom therapy is to make people understand that this "bad reaction" is NOT bad—it is a "good reaction," and most important to the improvement of the patient. I recall Dr. Beck reading me letters from his own patients who came for treatments and stopped coming when they had a "bad reaction." Then, later, they realized that after this "bad reaction" they started to improve and often became well. Often, also, they did not believe it was the bee venom therapy that made them well but that it was a "spontaneous remission." Strangely, these "spontaneous remissions" happened after bee venom therapy! In contrast to drug therapy, arthritics often continue to improve even after bee venom therapy treatments have been terminated, and they may remain free of pain and stiffness for many years with no further treatments.

These facts were all well known to Dr. Beck, 50 years ago, and to Dr. Anton Terc more than 100 years ago. These facts are just as true today as they were then.

Dr. Beck died just at the start of World War II. During those war years, practically all work and research with bee venom stopped. Soon after the war, the "wonder drugs" came into being, especially the cortisones for the treatment of rheumatic diseases that promised such dramatic relief. This led in turn to more research for drugs that would give dramatic relief without the serious side effects that are often worse than the disease itself. So far this goal is not in sight, and bee venom is again generating considerable interest. It is safe and effective and has no adverse effects as long as a person is not allergic. Arthritics are rarely allergic to bee venom in therapeutic doses.

Since Dr. Beck's time, methods have been developed to collect the pure bee venom that can be

made into solutions and injected intradermally, much like a live bee. This pure venom solution appears to be as effective as the direct live bee, according to Dr. Carey. Although he used the direct live bee during most of his medical career in his treatment of rheumatic diseases with bee venom therapy, he also experimented with the pure venom solution. After five years of using both methods interchangeably on many patients for all forms of rheumatic problems, he concluded that there was no difference.

At present, the pure venom solution is sold and is being used to treat people who are allergic to stinging insects. It is not yet approved for treating rheumatic diseases. At present, the live bee venom (the original hypodermic needle) is still used. It has the advantage of being available almost everywhere. It is safe, with no adverse effects from long-term use, and it is effective. Bee venom seems to be the only treatment that has a curative effect. That is, when relief is obtained after a course of treatments and is terminated, arthritics often continue to improve and may have no recurrence of symptoms for years. If there is a recurrence, another course of treatments will usually again bring lasting remission.

Going back to the days of Dr. Terc, through Dr. Beck and Dr. Carey, and to the present day, a course of treatment consists of applications of the bee venom usually every other day for several weeks. The number of applications in each treatment can range from 1 to 20. This depends on the severity and extent of the arthritis. A local, acute case of arthritis pain may often obtain relief with just one treatment of several applications. Old, chronic cases where almost every joint in the body is involved require long treatments, sometimes for a year or two.

The venom is usually applied to the affected areas and along the upper and lower spine, depending on the location of the arthritis. The upper spine is treated when the neck, shoulders, arms, wrists, and hands are involved. The lower spine is treated when the hips, legs, knees, and ankles are involved. The application of the venom seems to be most effective when applied to the "trigger points" or "hot spots," corresponding to some extent to acupuncture or acupressure points. Pressure is applied to the area with the thumb. When the thumb presses a trigger point, it will produce a sharp pain; it is this point that is treated.

Usually there is not much swelling from the venom at first, but later the treatment will produce much swelling, redness, itching, and heat. Also, more pain may be experienced, and perhaps even nausea, which can be most discouraging to arthritic patients, who may want to quit. It is most important to remember that this "reactive stage" is the most essential part of the treatment-it is an indication that the "immune system" is being stimulated to produce the healing processes. The treatment must continue. After about two weeks of this "reactive period," there is the stage of "resistance." This is when the body develops a resistance to the bee venom and will no longer swell when bee venom is injected. After the stage of resistance is reached, the treatments are usually terminated. If there is relief, the bee treatment does not need to be applied again until symptoms recur, which may be years later or not at all.

When and if the injectable bee venom can be legally used by doctors, the same treatment is used as with the live bee. The same amount of venom (one bee is equal to about 0.1 mg pure dry bee venom) can be injected with a needle intradermally to imitate the live bee, and it produces the same effects.

Almost all forms of rheumatic diseases respond to bee venom therapy. The only cases that do not seem to respond are where joints have deteriorated so much that there is a bone-to-bone contact in the joint. Unfortunately, bee venom cannot make new joints. Cases of this kind may need surgery and replacement of the joint.

In most cases arthritics prefer to be treated by doctors, as well they should be. However, since as of now doctors cannot use bee venom injections, a person who wants to use bee venom therapy is on his or her own. This takes a lot of courage and determination, especially for people who are desperate

after a series of unsuccessful medical treatments. It must also be remembered that some potent drugs for arthritis, such as the cortisones and cytotoxins, if used for a long time can cause serious, irreversible side effects. They can also suppress the immune system to the point where it cannot be stimulated, even with bee venom therapy. The immune system involves many actions of the body, such as the stimulation of the adrenals by bee venom to elevate the blood plasma cortisol level. The cortisone steroids tend to atrophy the adrenals so that they no longer function normally to produce the natural hormones in the body that relieve pain.

There is still a great deal to learn about bee venom therapy. Dr. Beck's book reveals much that is known about its pharmacology. More experience by many more arthritics will greatly increase the use and knowledge of the effective, natural immunological agents in bee venom.

Since Dr. Beck, most of the research on bee venom therapy has been carried out in Russia by researchers such as Dr. Artemov of Gorky University, in the 1960s. It was Dr. Artemov who first observed the stimulation of the adrenals to elevate the cortisol level in the blood. Other researchers have done much work to demonstrate the pharmacological action of bee venom.

In the U.S. the greatest amount of research in bee venom therapy was directed by Glenn B. Warren, a retired vice president of General Electric. Over the past 20 years, this research was financed by more than \$200,000 from his own arthritis foundation. Much of the work was done at Walter Reed Army Institute for Research, the U.S. Navy Radiation Defense Laboratories, Pennsylvania State University, and New York University Hospital by, respectively, James A. Vick, William H. Shipman, and Dr. Gerald Weissman.

This research, which consisted mainly of animal studies that examined bee venom's different fractions and the effect of these fractions as therapeutic agents, demonstrated many interesting properties of bee venom. A start has been made for an application for clinical research with bee venom in arthritics. Mr. Warren died in 1979, and his foundation is now called the Glenn B. Warren Memorial Arthritis Foundation. It is low in funds, but an effort is being made to obtain grants and donations to finance clinical research.

An association interested in promoting bee venom has been formed, called "the North American Apiotherapy Society," to stimulate further research in this field. A meeting is held each November near Washington, D.C., to review the prior year's research and experiences. Proceedings of the meeting are printed to keep members posted on progress being made.

It is hoped that interest in bee venom therapy will continue to increase and that from it, perhaps, will come a new application of immunological agents such as bee venom to cure and relieve degenerative diseases by the stimulation of the body's immune system. This field has tremendous potential, but very little research has so far been carried out. While there is great interest in the production of artificial therapeutic agents such as the steroids, interferon, and other secretions, the best place to produce these "natural disease fighting agents" is in the patient's own body. So far, exogenic application of these artificial agents has produced serious side effects. It appears that God and Mother Nature are still the best pharmacists.

We have yet to learn much in this most complex field of healing. At the present time, bee venom seems to be the most promising starting point in this fascinating study. For 100 years it has demonstrated its efficacy in thousands of cases and hundreds of papers written and published in Europe in many different countries.

We already have a solid foundation on which to build a new field of medicine with immunotherapy.

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