Two case studies

Use of four honeybee products to treat alopecia (hair loss)

by Dr. Novak Djuric and Dr. Sasa Djuric

Alopecia areata is a common type of partial hair loss. Although it occurs in small, round patches, typically on the scalp, any hair-bearing areas of the body—including the eyebrow and eyelashes—may be affected. Occasionally, all the hair on the scalp falls out, a condition known as alopecia totalis.

Alopecia areata is classified as an autoimmune disease, but in many cases the cause is unclear. One prevailing hypothesis is that certain people are genetically predisposed to develop alopecia areata and that an environmental trigger brings about the condition.

One popular form of treatment entails the topical application or intralesional injection of corticosteroids, with varying degrees of effectiveness.

We treated two patients with both partial and total hair loss, using four honeybee products:

- **Honey.** Can be used in oral and local treatment.
- **Pollen.** Can be taken orally, by itself. It can also be used in combination with honey, propolis, or royal jelly and applied locally as a mask.
- **Royal jelly.** Can be used fresh or freeze-dried (lyophilized) and taken orally. It can also be used in combination with honey or dissolved in alcohol.
- **Propolis.** Fresh propolis can be chopped and mixed with honey and taken orally. Propolis tablets can be dissolved in alcohol, water, or oil and also taken orally. Propolis tincture or cream may be spread on the affected area. It can also be applied to the area by electrophoresis with direct currents or by sonophoresis (ultrasound).

We used two forms of apitherapy:

- **Oral treatment.** The patients ate honey, pollen, propolis, and royal jelly, separately and in combination.
- **Local treatment.** We spread or applied bee products on the affected area.

Continued on page 4
As the AAS is fond of pointing out, honeybees are, perhaps more than any other living creatures, our allies in healing—they play a central role in safeguarding our health by producing nourishing and healing substances for us. One of the aims of this column is therefore to keep you up to date on honeybees’ own health. Recent months have brought reports of developments both unsettling and heartening.

On the bad-news front: Since 2006, when the phenomenon known as colony collapse disorder was first reported, at least 3 million colonies in the United States have died. And for the fourth year in a row, more than a third of all U.S. honeybee colonies have failed to survive the winter. Suspected causes of this die-off include viral and bacterial infections; parasites, like the varroa mite; pesticides—some, ironically, used to control these mites; and poor nutrition, itself the result of intensive farming methods. One popular hypothesis asserts that colonies are being affected by subtle interactions between nutrition, pesticide exposure, and other stressors.

But not everything is bleak. Bee clubs around the United States are reporting sharp increases in membership, especially among young people. Newcomers to beekeeping are prompted by concern over the plight of pollinators and the desire to connect with community-garden and local-food movements. A related piece of good news is that New York City has come to its senses where beekeepers are concerned. Until recently, the city grouped honeybees together with wild, potentially dangerous animals and prohibited keeping them outside a zoo. But in March, local beekeepers successfully prodded officials from the Department of Health and Mental Hygiene to amend the city’s health code to allow residents to keep hives of Apis mellifera.

An April 3 New York Times editorial endorsing this decision commented that honeybees’ “nature is ... gentle, their honey sweet, and their moral character benign and enterprising.” We couldn’t have said it better.

With warm wishes,

Patsy McCook
A warm hello to each of you,

For many of us it has been an extremely busy winter and spring, filled with apitherapy-related news and projects. I appeared twice on “The Dr. Oz Show” in New York City. The first program, aired in March, concerned raw honey and the treatment of stomach ulcers; the second one, shown in May, featured a demonstration of bee venom therapy for arthritis and pain management. (Photos taken of both programs are on page 5 of this issue.) It was quite the adventure trekking into the NBC studios—both times with an observation hive full of bees—and being initiated into the world of national television in the making. There were the standard hurdles of documenting material and studies regarding BVT for the medical team, and handling issues surrounding insurance; both of these took time but were successfully resolved. And although I was initially surprised at how efficiently the production team managed to reduce airtime in order to fulfill segment requirements, I’m grateful that Dr. Oz and his motivated producers gave apitherapy a much-needed forum on a major national TV program. A special word of thanks to my wonderful long-time patient and AAS member, Elizabeth Benjamin, for accompanying me on the show and graciously receiving three bee stings while remaining cheerful and professional.

The two segments can be viewed on the Dr. Oz website (www.droz.com) and on YouTube (www.youtube.com). Dr. Oz is looking forward to producing a segment on a new topic—propolis—as well as more in-depth segments on BVT.

Also seen on national television earlier this year was AAS board member Chris Kleronomos. In an appearance on “The Doctors” (www.doctorstv.com), Chris demonstrated BVT with one of the four physicians, Dr. Travis Stork.

Even as these television programs reach wide audiences, it is extremely important for each of us to persevere in our efforts to bring attention—no matter how small an exposure it may be—to the field of apitherapy. It is also crucial that we represent apitherapy and the AAS in an educated and professional manner at all times. Please inform the AAS office of any coming speaking engagements, presentations, workshops, and magazine or other articles with which you are involved. We want to be sure to post all these events on the AAS website. And, if possible, please take pictures and video!

I was also interviewed twice in my office, this time at length on BVT, for Channel 12 News on Long Island (a 24-hour regional news station), and on apitherapy, for FiOS (a cable network). In addition, I was featured on a radio interview for “Unbreak Your Health,” broadcast from Texas. Although this segment was originally scheduled to focus on BVT, it ultimately discussed all the products of the hive!

At the North Carolina State Beekeepers Association meeting (see page 10 of this issue), more than 300 people attended my presentation on BVT and filled the workshops that followed. This was a wonderful, supportive group of people, and I look forward to seeing them again before long. Some attendees are hoping to join the AAS at our next CMACC.

Speaking of CMACC, I’m pleased to formally announce that our 2010 Charles Mraz Apitherapy Course and Conference will be held in its entirety November 11–14 concurrent with the 8th International Conference on Biotherapy in Los Angeles, at the Hollywood Hilton. This is a new venture for the AAS and a new experience for CMACC as we join with a related group—now a partner—in the continuing effort to increase the public’s awareness of complementary medicine and medical devices.

Biotherapies include the medicinal and therapeutic use of maggots, leeches (hirudotherapy), worms (helminthic therapy), fish (ichthyotherapy), bacteriophage, and service animals such as cancer-detecting dogs. The November meeting will represent an extraordinary opportunity to attract a large global audience of students, health professionals, researchers, journalists, and others to the AAS and increase our network and exposure. Our vice president, Theodore Cherbuliez, has been invited by the BTER (Biotherapeutics Education and Research) Foundation to chair the Apitherapy Committee, in which CMACC participants will join BTER students for an entire morning on apitherapy as part of our conference.

I trust that you are as excited as I am about this new undertaking. And I hope many of you will join us in November. We need assistance in publicizing CMACC and in encouraging others to participate. Please consult the AAS website for information on registration and the hotel. You can also read about the BTER program on the conference website: www.bterfoundation.org/icb/icb2010.htm

Have a beautiful summer!

Frederique Keller
Case 1

A 17-year-old girl had been losing hair for about 10 years. A clinical examination was inconclusive. Her parents rejected the recommendation that she be treated with corticosteroids.

The patient started her therapy by eating a one-teaspoon mixture of honey, pollen, and fresh royal jelly 3 times a day, half an hour before meals. She also had an alcohol tincture of propolis and propolis cream applied to her scalp once a day, in the evening.

After one month, we observed significant improvements. Her hair became stronger, the hair loss slowed, and new hair grew in. We suggested that the patient have her hair cut short so that local therapy could be applied more easily.

After 2 months, her condition improved even more. However, 3 areas of her scalp still had no hair.

We continued the same oral therapy. Local treatment of honey and royal jelly was administered once a day, in the evening. It was kept on the scalp for one hour and was then washed out. The aim was to strengthen and nourish the roots of the hair. This treatment was continued for another 12 months and was twice stopped for a month.

After 18 months, the patient’s scalp returned to its normal condition. We recommended that she occasionally eat honey, pollen, and royal jelly.

Case 2

Over a 3-year period, a 27-year old woman had noticed a gradual loss of her hair, eyebrows, and eyelashes. Ultimately all her hair was falling out. Clinical tests were inconclusive. Corticosteroids were suggested, but she rejected that treatment.

The patient started her therapy by eating a one-teaspoon mixture of honey, pollen, and fresh royal jelly 3 times a day, half an hour before meals. An alcohol tincture of propolis was applied twice daily; propolis cream was applied once a day, in the evening. In addition, a mask of honey and royal jelly was applied in the evening.

After 7 months of treatment, several positive results were achieved. Tufts of black hair were visible, and the patient’s existing hair became stronger. We recommended a short haircut.

We then continued the same oral therapy. However, after 9 months of therapy, there were still small areas of the scalp without hair. In addition, there was baldness where the patient’s wig pressed against her scalp. We continued the therapy, along with the recommendation that she stop wearing her wig.

14 months after the start of therapy, her scalp showed hair growth in areas where it had fallen out. At this point we continued the same oral therapy but interrupted the local treatment.

18 months after the start of the therapy, oral therapy was interrupted. It was resumed after a month.

20 months after the beginning of the therapy, we viewed the patient’s treatment as a complete success: her hair, eyelashes, and most of her eyebrows had all grown back. We recommended that she occasionally eat honey, pollen, and royal jelly.
APITHERAPY IN THE MEDIA

Frederique Keller on the “Dr. Oz” show, aired in March and May 2010
Studying bee venom to treat osteoarthritis

Osteoarthritis, the most common disease affecting the joints, is typically managed by pharmacological approaches. However, another substance holds promise in treating this disorder: the venom of Apis mellifera. Bee venom has the dual major properties of encouraging strong immune responses and producing anti-inflammatory effects with few adverse reactions.

Although bee venom has been used as an arthritis remedy for more than 2,000 years—especially, most recently, in China, Japan, South Korea, Russia, and Germany—scientific guidelines for its use have been absent, and formal studies in the United States almost nonexistent. One investigator who has been researching and treating chronic degenerative diseases and autoimmune disorders since the early 1980s is Christopher M.H. Kim, a founder and former president of the American Apitherapy Society.

In 1989 Dr. Kim left the United States for South Korea, where he began developing Apitoxin, an injectable form of pure bee venom solution: 1.0mg pure dried bee venom in 1.0ml solution. Over a 14-year period he conducted a preclinical study (animal, toxicity, and safety trials), a phase I clinical study (human, toxicity, and safety trials), a phase II clinical study (efficacy trial), and a phase III clinical study. The phase II study was reported in the Fall and Winter 2000 issues (vol. 7, nos. 3 and 4) issue of this Journal. In 2003 Apitoxin was approved for use in South Korea, where many clinicians now use it for painful chronic diseases.

Dr. Kim, who previously served as chief of the apitherapy clinic, Cha Biomedical Center, Pochon CHA University, Seoul, Korea, is now the CEO of Apimeds, Inc., a South Korea–based biomedical company. This summer Apimeds is launching a trial in the United States that will test Apitoxin’s efficacy in 300 patients with diagnosed osteoarthritis of the knee. The investigation, a 12-week randomized, double-blind study, will measure primary outcomes—the relief of pain and inflammation, using Western Ontario and McMaster Osteoarthritis Index and Physician and Global Assessments—and secondary outcomes—increased range of motion and activity. A control group will receive histamine injections. Expected completion date of the study is June 2011.

Source: Apitox, Honeybee Toxin for Pain and Inflammation of Osteoarthritis. (Official title: “A Multicenter, Randomized, Double Blind, Active Controlled, Parallel Group, Clinical Study, to Evaluate the Safety and Efficacy of Apitox vs. Histamine in Subjects with Refractory Osteoarthritis Pain and Inflammation of the Knee.”) Identifier: NCT01112722. ClinicalTrials.gov
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**Honey**

To reduce recovery time from gastroenteritis

Gastroenteritis—which is often caused by microbes and is a leading cause of death in infants and young children in developing countries—can be treated simply and effectively by oral rehydration solution (ORS). Now researchers from the departments of pediatrics and clinical pathology at Egypt’s Ain Shams University have found that adding honey, with its known anti-inflammatory and antimicrobial effects, to ORS can help reduce the duration of gastroenteritis.

A total of 100 infants and children ages 2 months to 7 years with acute gastroenteritis were randomly assigned to one of two treatment groups: 50 received ORS with honey for rehydration, while 50 in the control group received ordinary ORS. Pure unprocessed honey of multifloral origin was supplied directly from the beekeeper, without heating or gamma-irradiation. Honey in a dose of 5 mL was dissolved in each 100 mL of ORS.

In the honey-treated group, vomiting and diarrhea were significantly reduced in comparison with the control group. Recovery time was determined by the number of hours from the start of treatment to the time of passing normal soft stools, with the patient showing normal hydration and satisfactory weight gain. Those receiving honey were observed to have a recovery time significant shorter than for those in the control group.


**To treat malodor in a fungating wound**

Many cancer patients develop what are called fungating wounds, which produce pain and often emit a strong, offensive odor. The odor—attributed to the presence of anaerobic organisms that thrive in areas of necrosis (cell death)—emanates from the unstable fatty acids released as a metabolic byproduct of the anaerobic bacteria.

New data suggest that dressings prepared with MEDIHONEY® may successfully treat these wounds and eliminate their odor. This effect is based on the metabolism of the glucose in honey, which produces lactic acid (rather than amino acids, which produce ammonia, amines, and sulfur compounds). The active ingredient in MEDIHONEY—a product of the Princeton, New Jersey, firm Derma Sciences, Inc.—is medical-grade active Leptospernum honey.

A recent report described two patients seen at the Cancer Treatment Centers of America in Tulsa, Oklahoma. A 44-year-old woman with locally advanced ductal carcinoma and bilateral breast wounds was given a MEDIHONEY dressing, which was changed daily. The necrotic slough tissue was rapidly debrided, the odor immediately disappeared, and honey’s analgesic effect resulted in decreased wound pain. Her right breast wound healed fully, and her left breast wound continued to progress toward healing. A 60-year-old woman with invasive local duct carcinoma grade 3 and a right-breast wound received a MEDIHONEY dressing, which was changed every three days. The necrotic slough tissues was rapidly debrided and the odor immediately eliminated. Her wound had healed by the third dressing change.


**To treat menopausal problems**

Scientists in Malaysia have found that Tualang honey, a Malaysian jungle honey, may help treat menopausal problems.

Their randomized, placebo-controlled trial compared the effects of Tualang honey (20 mg daily for 4 months) with those of hormone replacement therapy (HRT) among healthy postmenopausal Malay women ages 45-60. Whereas the HRT group reported 35.7% vaginal bleeding, there was no episode of vaginal bleeding among the honey-treated group. There were no differences in the bone densitometry and cardiovascular risk factor in the honey and HRT group. Nor were there significant changes in other health measures—liver enzymes, serum creatinine, and uric acid—between the two groups.

To reduce blood glucose

Researchers from the School of Exercise and Nutritional Sciences, San Diego State University have found that consuming honey is more effective than glucose in reducing blood sugar.

In a randomized, crossover design study, 14 healthy subjects consumed solutions containing honey, sucrose, or glucose after a 10-hour fast. There was little difference among the groups in feeling satiated. However, honey consumption produced a lower plasma glucose and insulin than did glucose. Honey also produced lower plasma glucose than did sucrose, but no difference in insulin. The researchers conclude that at a given energy load, honey promotes a potentially healthier metabolic response than sucrose or glucose.


To treat chronic cervicitis

Chronic endocervicitis, the inflammation of the tissues of the cervix, presents problems of resistance, incomplete post-cauterization healing, recurrence, and infertility. Now two researchers in the Department of Gynecology at Egypt’s Sohag University have found that intracervical Egyptian bee honey injection may promote both healing and fertility.

The scientists randomly assigned 60 patients with resistant, recurrent, and unhealed chronic cervicitis as the sole reason for infertility to one of two groups: (1) cauterization—use of an electronically heated probe to burn the inflamed and infected cells—followed by immediate and late intracervical bee honey application under ultrasonographic guidance and (2) cauterization alone.

Patients in the first group experienced better fertility outcomes (as measured by occurrence of pregnancy within one year) as well as higher rates of clinical cure, including more pain reduction, better healing, and less recurrence.


Bee venom therapy

Needle-free acupuncture to reduce pain

The new technology known as needle-free acupuncture refers to the process of clearing the body’s “meridians” (highways), and bringing “Qi” (energy) back into balance and harmony, without the use of acupuncture needles penetrating the skin. Instead, healing chips made from jade, blue sapphire, and crystal using nanometer technology are placed on the acupuncture points. Scientists at the University of Texas and the College of Korean Medicine have found that this technique can serve as an alternative to conventional needle injection.

A total of 101 patients suffering myofascial shoulder pain were randomly assigned to receive either needle-free or conventional needle injection acupuncture. Patients in both groups were administered bee venom into GB21 (Gyeonjeong) acupuncture point. For both groups, shoulder pain was significantly reduced by the treatment. In addition, patients treated by needle-free acupuncture reported less anxiety, less discomfort, and fewer adverse events than did those receiving needle injection.

BVT for back and scar pain

It was 1999: the year that would change my life forever. After being a funeral director and an embalmer for 17 years, one day I woke up not being able to shut off my alarm clock, because I had no feeling in my hand. After some medical tests and an MRI, I learned that I had a ruptured disc in my cervical spine along with a herniated disc in my lower back.

The journey that I would take over the next several years included 5 cervical surgeries, one lumbar surgery along with the placement of an intrathecal pump for chronic pain, and plenty of physical therapy. As a result of the repetitive surgeries along with my initial injuries, I have been left permanently disabled with daily chronic pains. The intrathecal pain pump that was implanted in my abdomen and connects directly to my spine helps cut the chronic pain but doesn’t eliminate all of the pain.

Now, fast-forward to 2010: I am still disabled, but wanting something to do, I decided to learn how to become a hobby beekeeper. Part of my beekeeping process was to join the Mecklenberg County Beekeepers Association as well as the North Carolina State Beekeepers Association, whose meeting I attended this past March.

The weekend featured several keynote speeches, but the one that sparked my interest in particular was on the topic of apitherapy. Frederique Keller, the speaker, gave an extraordinary presentation. I couldn’t wait to attend her practical workshop—I had been riddled with pain since my intrathecal pain pump had stopped working altogether a week before, and I was waiting for it to be replaced. In the meantime, I was given oral painkillers, which barely touched the pains that I was feeling.

So, after Frederique finished her lecture, I approached her at the stage to ask if it would be possible to receive bee venom therapy. She said she would gladly try to help me. As we walked to the classroom where the workshop was scheduled, I discussed my medical history with her. She assured me that apitherapy would give me some relief.

As the workshop began, Frederique asked me to come to the front of the classroom, which was filled with beekeepers, and to present my medical history. As I took off my shirt, it was obvious from the scars on my spine and back that I had undergone many surgeries. Because I had been stung only once by a honeybee, the year before, it was important to receive a test sting to make sure that I wasn’t allergic to it. I passed that test with flying colors.

After 5 minutes, Frederique asked me where I hurt the most. I told her that I was in extreme pain from the small of my back and down both legs. She then stung me on the right side of my spine at the level where I would wear my belt. I felt the pinch and then the burning of the venom.

But within 5 minutes, I had no pain in the small of my back or any pains down my legs. I wouldn’t have believed it if I hadn’t experienced it myself. I did get another sting at the top of my buttocks, because I still had pains running through my pelvis. Again, within 5 minutes, those pains were gone.

I was advised to get bee venom therapy 2 to 3 times a week, as well as mini-stings on the multiple scar lines on my back, to improve my quality of life. I assured Frederique that it wouldn’t be a problem, since my friends and I are beekeepers and are willing to learn more about apitherapy.

I spoke to Frederique a few days after the workshop and informed her that I had been pain-free for 10 to 12 hours. She was surprised that I had gotten relief for such a long time, but was glad that I did. And she offered to treat me whenever I come to visit family on Long Island.

Steven Coradini
Charlotte, NC
sesejjt@yahoo.com

Another attendee at the North Carolina State Beekeepers Association workshop on bee venom therapy receives a sting administered by Frederique Keller.
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A reminder: AAS store open for business

Our revived store on the AAS website is open and ready to serve you. We will offer a 10% discount to all AAS members.

Initially the store will sell selected books, CDs, and tweezers. Please let us know—by sending an e-mail to aasoffice@apitherapy.org—if there are other items you would like to buy.

While on the website, please also check out the new process for becoming an AAS member and renewing your membership.

A reminder: New mailing policy for the Journal

Like many other nonprofit groups that must economize but also want to continue to serve their members, the AAS has been making the transition to an electronic version of the Journal. Starting with the last issue, new members are receiving it as a PDF sent by e-mail. The Journal is also available online in the “Members Only” section of our website (www.apitherapy.org).

If your membership was current before January 1, 2010, you will still receive the Journal by regular mail until your membership expires. At that time, you, like all new members, will receive it by e-mail. If you do not have e-mail or if you wish to get the Journal by regular mail, you will be charged an additional annual fee of $15 (U.S. residents) and $25 (non-U.S. residents).

Thanks for your understanding of this policy!

A reminder: AAS office change

Earlier this year the management of the AAS moved from Centerport, New York, to Draper, Utah.

Our phone number and e-mail address are unchanged:
(631) 470-9446 and aasoffice@apitherapy.org
Apimedica 2010

Apimedica is a medical congress organized every two years by the Apitherapy Commission of Apimondia, the international beekeeping organization.

The next Apimedica, focusing on “keeping healthy through bees,” will be held from September 28 to October 2, 2010, in Ljubljana, Slovenia. The AAS’s vice president, Theo Cherbuliez, heads the Apitherapy Commission and is organizing apitherapy presentations to be given at this event.

Deadline for hotel reservations: August 15
More information: www.apimedica.org

Next CMACC!

The AAS’s annual apitherapy course and conference, known as CMACC, is scheduled for November 12-14, 2010, in Los Angeles.

It will take place in conjunction with the 8th International Conference on Biotherapy, held for the first time in North America.

For information updates, check the AAS website (www.apitherapy.org)