The Practice of Bee Venom Therapy with Special Reference to Multiple Sclerosis Patients Treatment
Dr. Eugen Stefan
(Romania)

Beekeeper
Trainer for Apitherapy, Phyto-Therapy, Aromatherapy,
Ayurvedic Medicine
Acupuncture licensed
President of Romanian Society of Ayurvedic Medicine
Email: stefeug@gmail.com
Telefon: +40745935628
Website: www.roayurveda.ro, www.ayurveda-romania.ro
Products of the Hive

- Bee Venom
- Bee Pollen
- Royal Jelly
- Bees Wax
- Honey
- Propolis
- Bee bread
- Bee Larvae
- (Essential Oils / Beehive Air)
Brief History of Bee Venom

The very first human being (prehistoric) who was in search of honey ... received BVT.
The ancient Egyptians applied bee stings directly to the affected area to treat rheumatism.
One of the first papyrus scrolls (Smith Papyrus) dates back 2000 BC, In Egypt, describes how stings or dead bees were rubbed into the painful area.
Other ancient civilizations such as: Babylonia, Assyria, Greek city states, Nubia and Rome, also adopted these methods.
Egyptian had great respect for bees and, in fact, worshipped them. They made bees part of human medicine.
Brief History of Bee Venom

- **400s BC**  Hippocrates: first mention
- **357 BC**  Tacitus: military use of bees’ stinging (As late as 1918!)
- **800**  Charlemagne’ gout cured
- **17. Cent**  China: Api-acupuncture
- **1853**  USA : Publication of Bee Venom Proving (C. Hering)
- **1879**  Austria: Philip Terc: High doses up to 200 stings/day
- **1930**  Germany: first industrial production of apitoxin
A New Medical Approach

Bee Venom Therapy (BVT) is an intrinsic part of Apitherapy. The venom, injected when a bee stings, has a number of activities. Bee Venom is a powerful instrument for this new approach to medicine; it addresses the organism’s capacity for health rather than targeting the illness. By shaking the organization of the pathology, BVT destabilizes the equilibrium of the pathological state and redirects processes, giving the individual a new chance to heal.
What is the Venom?

- Venom is what comes out of the protecting apparatus of the bee
- Quantity depends on the age and the race of the bee
- Composition depends on:
  - the pollen consumed / food
  - the age of the bee
- Bee Venom keeps fresh and pure: in the live bee only!
When a bee stings...

- ... another bee, she can withdraw her sting and continue
- ... a person, the sting gets embedded in the skin and, together with the venom sac, gets torn off her body; the bee will die
- The venom sac contracts rhythmically and expulses its content in the skin in 2 to 3 minutes (the main quantity)
- There is no exposure to air, therefore no oxidation of the venom
What is Apitoxin?

- An injectable product obtained from bee venom
- Quality depends on the producer
- At injection:
  - Oxidation: esters acidified
  - Few volatile components conserved
  - Aqueous solution in ampoule for undetermined time
Bee Venom vs Apitoxin

Quantitative

- **1 bee** = 80 to 500 µg - Average: ≈ 150 µg
- In 1 minutes: ~ 90% of 150 µg: ≈ 135 µg
- **N bees = N different “Hits”**
  - quantitatively
  - qualitatively
- **Procedure**: no double blind
- Amount very approximately knowable
Apitoxin vs Bee Venom

Quantitative

- 1 Unit = 100 µg
- N injections = N identical “Hits”
- Product: allows (?) double blind
- Amount fairly well knowable
- Can be mixed with novocaine
Bee Venom: natural product

- Natural product

- Molecules are: Complex

- Variable Depends on pollen, bee’s age

- Variable combinations

- Acid and basic glands mix extemporaneously
Bee Venom: Action

Action **direct** and **indirect**:

- **Local**: to joints or skin
- **Acupuncture point**
- **Distant**: to pituitary, suprarenal
General Effects

- Improved blood circulation
- Immediate inflammatory effect
- Hypo-algesic effect
- Stimulation of pituitary-cortical system
- Increase of physical strength
- Secondary anti-Inflammatory effect
- Cytostatic effect
- Activation of the immune system
Composition

- Peptides
- Enzymes
- Esters: volatile elements
- Water
Peptides

- Melittin: 40 - 50 %
- Apamin: 2 - 3 %
- Mast Cell Degranulating Peptide: 2 - 3 %
- Adolapin: 1 %
Melittin

Action

- Central
- Ganglions
- Neuro-muscular
- Heart
- Peripheral circulation
- Vessels’ permeability
Melittin

Effects

- Anti-fungal, Anti-bacterial
- Degrانulant → Activates Histamine
- Decreases surface tension
- Stimulates ACTH (Plasma Cortisol in rats)
- Provides the “ouch” and the itch
Apamin
Action

- Anti-inflammatory
- Blocks calcium-dependent potassium channels
- Enhances long-term synaptic transmission
- Shortens neuronal action potential
Mast Cell Degranulating Peptide

Action

- Mastocytolytic action: Histamine → Inflammation
- Anti-inflammatory (not via Adrenals)
  (100 > Hydrocortisone)
- Vascular permeability increased
Adolapin

Action

- Anti-inflammatory
- Analgesic
- Antipyretic
Enzymes

**Phospholipase A2**
- Blood pressure (normalization)
- Cardiac rate (normalization)
- Mastolytic action

**Hyaluronidase**
- Increases tissue permeability

**Together they do**
- Local clean-up
- From Chronic to Acute
Esters

Action

- Antispasmodic
- Anti-arrhythmic
- Calming
- Tonic
BVT Clinical Fields

- Cardio-vascular
- Neurological
- Immunological
- Rheumatological
- Pulmonary
- Dermatological
- Infectious
- Ophthalmology
- Oncology
Cardio-vascular

- Hypertension
- Arrhythmia
- Atherosclerosis
- Hypotension
- Endarteritis
Pulmonary

- Asthma
- Chronic Obstructive Pulmonary Disease
- Emphysema
Neurological

- Multiple Sclerosis
- Neuritis, sciatica
- Bell’s palsy
- Diabetic neuropathy
- Chronic pain
- Carpal tunnel syndrome
- Epilepsy? (China)
Dermatological

- Eczema
- Psoriasis
- Topical ulcers
- Corns
- Skin Tumors
- Vascular skin tumors
Immunological

- Scleroderma
- Lupus erythematosus
- Endarteritis obliterans
Infectious

- Shingles (zona zoster)
- AIDS
- Warts
- Viral meningitis
- Chronic Fatigue Syndrome
Rheumatological - 1

Articular

- Rheumatoid
- Psoriatic
- Osteo-arthritis
- Traumatic
- Gout
Rheumatological - 2
Non-articular

- Bursitis
- Tendinitis
- Dupuytren’s contracture
- Fibromyalgia
- Scars
Ophtalmology

- Glaucoma
- Macular degeneration?
Veterinary

- Api-acupuncture
- Arthritis
- Infections
Acupuncture

Api-acupuncture  All Points
Chinese Indications

- Hemiplegia by emboli and thrombi
- Benign tumor of the skin
- Facial paralysis
- Facial spasm
- Trigeminal neuralgia
- Peripheral neuritis
- Epilepsy
- Neurosis
- Headaches
- Bronchial asthma
- Pericapsularitis
- Rheumatoid arthritis
- Hypertension
- Masculine functional/climacteric impotence
Ayurvedic Medicine

• Could be considered an agni-kshara-karma method (fire-alkali)
• Indicated for Ama, like ama-vata (rheumatic arthritis, ankilosant spondilitis)
• Indicated for vata: pains, sciatica, etc.
• Indicated for kapha: paralyses, tumors
• Precautions in pitta or rakta
• Precautions in bleedings or menstruation
• Can be combined with other methods of raktamokshana, like leeches
Counter-Indications
Unstable/acute conditions

Insufficiencies:
- Cardiac
- Kidney
- Pulmonary

Endocrine conditions:
- Adrenals (hypo)
- Thyroid (hyper)

Psychiatric conditions

Infections, local and systemic
Counter-Indications

Chronic conditions (none is absolute)

- Diabetes (insulin dependent)
- Liver cirrhosis
- Depression
- Anxiety
- Unwillingness / lethargy
- (Use of β-blocker)
Bee Venom Reactions

Local
- Immediate
- Delayed
- Large

General
- Immediate Skin
- Systemic Non-threatening
- Systematic Life-threatening
- Delayed

Measures
Local Immediate
usual

- **Pain:** show personality response
- **Heat:** shows arterial response
- **Redness:** shows veinous response
- **Swelling:** shows tissular response
Local Delayed

unusual

- Itching ➔ ignore, cooling, preparation H
- Redness, swelling ➔ Lymphatic problem
- Deep pain (on joints) ➔ shows deep reach
- Small granulation spots ➔ (remove sting)
- Later revival: ➔ without meaning
Local Large

unusual

- Massive swelling (over 10 cm)
  - Increasing over 1 to 3 days
  - Lasting up to 1 week
- Not infectious
- Bloody Blister (at beginning)
Systemic Non-Threatening-1

- Rhinitis, conjunctivitis
- Minor respiratory symptoms
- Gastro-intestinal (severe)
- Abdominal cramps
Systemic Non-Threatening - 2

- Metallic taste
- Weakness
- Fear or emotional upset
- Fever
General Immediate - 1

“I don’t feel right/well”

- Nausea
- Urge to urinate
- Dizziness
- Urge to defecate
- Sweating

?
General Immediate - 2

- Itching palms and soles
- Itchy throat or eyes
- Urticaria: hives, nettle rash
Angioderma: generalized swelling

Pruritus: generalized itching

Erythema: generalized redness
Systemic Life - Threatening

Shock

Hypotension, fainting

Respiratory distress

Laryngeal blockage
Systemic Life - Threatening

Unconsciousness

Cardiovascular collapse

Death (none recorded so far)
General Delayed

- After 7 to 14 days of treatment
- Fever
- Flu-like
- Symptoms are:
  - Gastro-Intestinal picture
  - Headache, dizziness

Healing crisis!
## Circumstances and Adverse BVT reaction

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Adverse Reactions

- Frequency independent of diagnosis

- Severity:
  - ~85 % can be handled by general knowledge of the reactions
  - ~10 % require specialized knowledge
  - ~5 % require medical intervention
Treatment of Local

- Reassurance / calming
- Elevation of member
Immediate Measures

- Emotional: calming the patient
- Pharmacological: Adrenaline / anti-Histaminic / Cortisone
- Homeopathy: Apis CH5 administered at every 3-5min
- Acupuncture: DM26 / GV26 – strong pressure under nose H9, UB52
- Other: Energetics, herbs, etc.
Acupuncture and Adverse BVT reaction

Points that may potentiate adverse reaction

- The first and last point of each channel
- Conception # 8
- Colon # 20
- Colon # 1
- Lung # 11
- Lung # 5
- Spleen # 1
- Triple Burner # 23
- Heart # 1
- Heart # 7
- Heart # 9
- Kidney # 4
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Therapeutic Dosages

Bee Venom

one Bee delivers Bee Venom

- one bee delivers in average ~ 150 µgr
- A “micro-sting” sting left briefly delivering from ~ 1-2 µgm on (1 sting used >100 times !)
- Doses vary from 1 micro-sting to > 100 stings
Therapeutic Dosages

**Apitoxine**

- **one Syringe delivers Apitoxine**

  - one dose = 100 μgm = 0.1 mg.

  - 20 stings ~ 30 doses = 3.0 mg.
Amount Toxic - bee stings

Theoretical

- $LD_{50} = 2.8 \text{ mg/Kg} = 19 \text{ stings/Kg or 9 stings/lb}$

- A man of 75 Kg (166 lb): 1,425 stings

- A child of 30 Kg (66 lb): 570 stings

- Death by lung and/or kidney failure
Safety - Statistics

- 7/8 people having received 1000+ stings survived!

- Maximum 2,234 stings in a male aged 30 (Zimbabwe)

- Attention:
  - Very young - light
  - Very old - vulnerable to stress
Toxic / Therapeutic Ratio

For Homo contemporanus (75 Kilogr.):

- Toxic amount (LD$_{50}$) = ~ 210 mgr.
- Therapy:
  - 20 stings: ~ 3 mgr.
  - 200 stings: ~ 30 mgr.
- Ratio equals: ~ 70
- Ratio equals: ~ 7
When to Sting?

- Once a week
- Three times a week
- Every day
- In the morning
- At night
- On the week end
- Never on Sunday?
Administration - 1

By injection:

- Intra-dermal
- Bee sting or syringe
- Sub-cutaneous
- Deep Peri-articular
- Intra-muscular
Administration - 2

- Trans-dermal
  - Salve: Rubbed in or moved in by electrophoresis
  - Liquid: Rubbed in with tool (China)

- Inhalant

- Oral: combined with honey

- In eyewash
General Protocol

- "right to two stings"
- 3 more than last time
- No more than you need
- Frequency and timing
- Give support
M.S. Protocols

- Symmetry principles
  - right-left
  - up-down
  - combined
Week 2

Buttocks & Hips
(10)

Shoulders
back & front
(4)

Back of Chest
(12)

Total 34
Week 3

Pat Wagner

Groin & Thighs (14)

Shoulders
Chest & Arms (10)

Back (16)

Total 40
Week 4

Hamstrings (12)

Knees (4)

Neck (18)

Shoulders & Arms (17)

Total 51
Week 6

Kidneys
(10)

Feet
(10)

Total 20

TOTAL 191
M.S. Protocols

• In MS patients BVT is practiced along with other unconventional therapies, like:
• The use of other bee products like: royal jelly, pollen, bee bread, propolis, honey – usually combined.
• The use of medicinally herbs
• The use of dietetics
• The use of kinetic therapy or other recovery techniques
M.S. Protocols

- **Raw royal jelly**: 3-4 ml/day, in periods with breaks
- **Propolis tincture** (30%) 2x3 ml/day in periods of 3 weeks, separated by 10 days break, mixed with honey
- **Fresh frozen pollen**: 3-4 tea-spoons/day, in different protocols
- **Api-phyto-tonics** – all these are combined, along with herbs, in honey, administered in different protocols (14+ 14 days, or 20-21 + 10 days)
Thank you very much for your attention!

Best wishes for your activity!
Σας ευχαριστώ πολύ για την προσοχή σας!
Τις καλύτερες ευχές μου για τη δραστηριότητά σας!