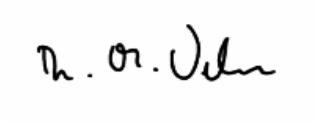
Foreword

Dear colleagues,

I'm welcoming you to our third international congress of the European Society for Biological Lasertherapy and Acupuncture. I'm sure that we will spend together nice days in Beverungen and Göttingen and will develop our contacts and friendships beside the scientific and clinical presentations.
I'm greeting especially our foreign guests and appreciate that they have made long trips to attend this event. I'm very thankful to our speakers from the different countries presenting their scientific and clinical work in the field of biological lasertherapy and acupuncture.
They all made a lot of efforts to present new data of this exciting field which is in rapid development. The synthesis of clinical and basic research data will highlight new ways for the future with benefit for all of us and our patients.
I wish you nice hours in a relaxed atmosphere and hope you enjoy our social program with sightseeing and steamboat river tour on Friday.
Please enjoy the wonderful traditional atmosphere of the old university city of Göttingen.
I'm inviting you already today to come again 2009 to our next international congress and encourage you to collect own data for presenting them next year.

I'm wishing you nice and restorative days with much new information.

Sincerely



Dr. med. Dipl. Chem. M. Weber, President of the EGLA

Acute hearing loss and intravenous laser therapy - interesting case reports from medical practice

(Peter Aluani, MD, Board Member of the Austrian Society of Controlled Acupuncture, Graz, Austria)

Intravenous laser blood irradiation for acute hearing loss and tinnitus

In the last 2 years I often treated patients with tinnitus with a combination of acupuncture and intravenous laser blood irradiation.

A therapeutic effect is assumed if a patient will report a subjective improvement of more than 50 % for 3 months. A success could be achieved in about 23 % of the patients, so there is only a small success in treatment of tinnitus. The application of blue light and anti.tinnitus frequency of Reininger could not improve the success further.
The diagrams for hearing capacity were controlled during and after the treatment and it could be proven that hearing function often improved significantly after treatment.
Even in long lasting hearing problems for more than one year an improvement of hearing capacity could be detected.
I will present several case reports und discuss possible explanation for the effects. A bigger study in a clinical department for ENT is planned and will be performed shortly.

How can I find the optimal frequency for intravenous laser blood irradiation?

In modern devices for laser needle acupuncture and intravenous laser therapy we can use different frequencies.
But which frequency is the right one for our therapy?
This is often not easy and very often the therapy is performed in the continuous wawe (cw) mode.
I would like to present a system with which the right treatmen frequency can be easily detected.
I looked for the optimal testing point and could find out that the point Spleen Nr. 10 will be the best for checking.
By use of the Nogier reflex (reflex auriculo-cardiac, RAC) we are able to check the right frequency for our treatment.
For a help we use a small computer-frequency-hammer. With this technique the right frequencies can be determined very quickly.
In the my workshop this method will be demonstrated in practice.

Intravenous laser therapy in horses

(Andreas Wirz-Ridolfi, MD, Head of the Centre for Traditional Chinese Medicine and Laser Acupuncture, MEDI-China, Reinach-Basel, Switzerland Board Member of the Swiss Association for Laser Therapy)

Wirz-Ridolfi, A.H.,* Baumgartner,M., Burger,D.**, Gerber,K.****Center for TCM, Reinach,Switzerland, ** Swiss National Stud Farm, Avenches,Switzerland,*** Berlin

Introduction:

In humans intravenous laser blood irradiation has been practised for more than 25 years, first in the former Soviet Union (Prof. Karu and others), then in Finland (Dr.Gasparyan) later in Germany (Dr.Weber, 2004) and finally in Switzerland (Dr.Wirz, 2006). The effect of intravascular Low Level Laser Therapy (LLLT) is well known in theory: Absorption of photonic energy in biological structures changes energy levels of cells and increases intracellular metabolism. Its clinical application has been well documented in many human patients, by Dr. Wirz, among many other researchers, who presented improved laboratory values and clinical conditions in 246 patients treated in his Center for Traditional Chinese Medicine.
A medical doctor by profession the author is also a well known international endurance rider (former member of the Swiss national endurance riding team, participating in European and world championships) and guest lecturer for complementary medicine in horses at the Swiss National Stud Farm in Avenches, it seemed logical to give the benefit of intravenous blood irradiation also to horses.

A careful literature research found no publications on this specific topic, except R.Muxeneders paper presented in May 2006

Materials and method:
A multicenter pilot study was initiated, whose preliminary results shall be presented for the first time at Laser Helsinki 2008, the 13 th international congress of the European Medical Laser Association EMLA. Totally 14 horses was treated at the Swiss National Stud Center in Avenches (Dr.Burger,Dr.Baumgartner), in Germany by Dr.Gerber and in France by Dr.Wirz. The following techniques were applied, the machinery was put at our disposal by the respective manufacturers: Webermedical, Lauenförde, Germany: Laser blood red light irradiation (632 nm) in Avenches, Switzerland,
laser blood blue light irradiation (405 nm) in Germany
and from EMRED, Finland a battery powered blue blood laser prototype (405 nm) for the study in France.

Pilot Study of the Clinical Equivalence of Laser Needle to Metal Acupuncture Needle in Treating Musculoskeletal Pain

(Peter T. Dorsher, MD, Mayo Clinic, Jacksonville, Fl. USA)

Background: Acupuncture has been in clinical use for over 3000 years, and its methodology has evolved as new technological advances occurred over time.
Objective: To determine if relief of regional musculoskeletal pain using metal and laser needles at acupoints have clinical equivalence
Design: A prospective crossover cohort study of subjects previously treated for musculoskeletal pain with metal needles using laser stimulation of those same acupoints
Setting: Outpatient clinic
Subjects: 30 adults with chronic joint (knee or shoulder) and/or spine musculoskeletal pain previously successfully treated with acupuncture using metal needles
Intervention: Focused laser (Laserneedle) stimulation of the same acupoints previously treated with metal needles alternating with treatments using metal needles for 2 cycles (metal → laser → metal →laser)
Main Outcome Measures: VAS pain rating one to three weeks after treatment, patient preference (metal needle versus laser), laser complications
Results: For subjects with knee and shoulder arthritis, metal needle VAS was 5.9 while Laserneedle VAS was 3.1 (mean difference 2.8, P<0.001 single tail). For subjects with spine pain, the metal needle VAS was 3.7 while Laserneedle VAS was 2.95 (mean difference 0.75, P<0.074). 9/10 subjects with joint arthritis reported more efficacy with Laserneedle and the other found it equally efficacious. 10/20 spine pain subjects reported more pain relief efficacy with Laserneedle, and another 6 found the interventions equally efficacious. No complications from the laser treatment were noted.
Conclusions: This prospective, crossover cohort study of subjects with chronic musculoskeletal pain demonstrates that metal and laser acupuncture needles have clinical equivalence in reducing pain, and that patients (especially those with shoulder and knee arthritis) report preference for laser needle treatments.

Key words, pain, musculoskeletal pain, acupuncture, laser, crossover cohort study

Laser therapy in a holistic oriented veterinary clinic for knee- and hip osteoarthritis, intravenous laser blood irradiation of epilepsies and laser therapy of Keratitis und Anämia in animals

(Thomas Backhaus, Vetenary Doctor, Vetenary Clinic, Longuich/Trier, Germany)

In our veterinary clinic we are 5 veterinary doctors who are working with a holistic concept.
We combine western scientific medicine with natural medicine and traditional Chinese medicine.
We are working with different lasers, surgical high power lasers, but also laser needle acupuncture and intravenous laser blood irradiation.
We use the surcal laser f.e. in treatment of hip dysplasia. Case reports and x-rays will be demonstrated.

We use 1 – 15 W lasers in treatment of joint arthritis, spine cord eye surgery, dermatological tumors, in gum problems and different other tumors of the body.
We also use photodynamic therapy in different diseases and present several case reports of dogs and cats.
We will present also case report from laser scarification in different diseases.
Laser acupuncture is to our opinion different from needle acupuncture. With laser acupuncture we increase energy in the meridians and the body in general with systemic effects.
We often combine intravenous laser with laser needle acupuncture.
We will present data of combined laser therapy in anaemia, skin diseases, nervous system and in cancer.
We also treat successfully eye problems, loss of hearing and internal diseases like kidney and hepatic insufficiency, asthma and bronchitis.

The therapy of Macular Degeneration and Retinitis Pigmentosa with Low Level Lasertherapy

(Martin Jodlowski-Tan, MD, Internal Specialist, Sydney, Australien)

An extrapolation of available data suggests that between 3 to 4% of the world's population is suffering from macular degeneration whereas the prevalence of Retinitis Pigmentosa is not as stark in comparison (an estimated 0.05%). Despite this difference, the consequences are no less devastating and both lead to deterioration of vision and eventually, to blindness. While the market offers many 'treatment' options, both conditions have been notorious for their resistance to most therapeutic efforts, and patients are left feeling frustrated at seeing few, if any, results for the substantial cost they are expected to pay.

The 'light at the end of the tunnel' may be recent encouraging responses seen in 12 patients with Retinitis Pigmentosa and Macular Degeneration who underwent a new treatment regime involving intravenous laser and indirect percutaneous laser applied in three cycles over 12 months. Eye sight saw improvements of up to 30% measuring the visual field on ordinary Amsler grids. The treatment also appears to impact deeply on visual acuity and colour as a beneficial surplus alongside improvements reported for many other ailments including diabetes, hypertension and arthritis.

From Burn-out to cancer – the inflammatory mitochondropathy, new therapeutic strategies with intravenous laser therapy

(Ralf Meyer, Alternative Practioner, Pirmasens, Germany, Academy for Cellsymbiosis Therapy)

According to Dr. Heinrich Kremer chronic diseases, especially by potentially increasing disruption of cell respiration and cell performance, which are also controlled by their mitochondria, whose function and regulation of structural and stabilization of the main constituents of Cellsymbiosistherapy represents death.
Reasons for this are, inter alia in chronic inflammation, deficiency or uninsured increased demand for amino acids (proteins necessary), trace elements, minerals, vitamins, polyphenols (plant extracts), loads with industrial poisons such as Heavy metals, nutritional disorders, immune deficiencies, chronic infections, stress, and Electrosmog disorders of the digestive organs (such as limited recording capacity of the intestinal mucosa or reduced digestive power), psychological stress and genetic mutations suspected.
In each cell there are on average 1500 mitochondria (with the exception of red blood cells). In nerve cells are even up to 5000 mitochondria and in heart muscle cells up to 2000 and make the heart approximately 70% of the weight from.
Mitochondrial dysfunction or structural destruction are playing an important and overriding role in the Cellsymbiosistherapy in the emergence and fixation of chronic diseases.
Mitochondria are vital cellular organelles, derived from bacteria have developed and control / steer almost all metabolic benefits, energy benefits and detoxification processes in all cells of our organism.
In case of malfunction of the mitochondria function is then formed Energy (ATP), which are all different (differentiated) services of the institutions (cellular services) controls are no longer within the mitochondria with the aid of oxygen and oxygen free radical formation formed but either with oxygen, but without oxygen radical formation or without oxygen, outside of the mitochondria, via fermentation of glucose formed.

It will no longer be differentiated cell performance of all organ systems controlled or maintained, but the cell cycle is activated. It means "differentiated cell power" is nothing other than that our institutions fulfill different functions, have different levels, such as the heart, which pumps the blood, in contrast to the stomach, which has to produce digestive juices.
All these benefits are differentiated organ controlled and are dependent on the energy performance of the mitochondria.
Diseases and disorders
Clinical pictures, which were a result of disruption of mitochondrial function or its structure (and the above-mentioned other causes) may develop are:
• circulatory disorders - atherosclerosis, heart attack, stroke
• Hypertension
• Immune weakness with recurrent viral infections (herpes, Ebstein-Barr, hepatitis, etc.), fungal infections (Candida, Pneumosystis carinii, fungi, etc.), bacterial infections (tonsils, bronchi-, middle-, mucosal inflammation of the intestines and stomach) e
• Orthopedic disorders (arthritis, degeneration of joints, bones, spine Systemes)
• with chronic inflammatory diseases of internal organs and mucous membranes
• age-related diseases (Alzheimer's, dementia, Parkinson's)
• Psychiatric disorders such as depression, schizophrenia, neurosis
• allergies (atopic dermatitis, hay fever, asthma, conjunctivitis)
• fatigue syndrome, burn-out
• impotence, frigidity
• organ degeneration, cholesterol increase,
• endocrine disorders Education
• Premature aging
• autoimmune disorders and
• ADHD (attention deficit syndrome)
• Cancer

General Protocol of Comprehensive Cancer Therapy based on recent research: an offer of diagnostic and therapeutic measures for cancer patients at all phases of a malignant disease.

(Prof. Wolfgang Köstler, MD, Vienna, Austria, President of the Austrian Society of oncology)

The General Protocol of Comprehensive Cancer Therapy can be implemented at all phases of a malignant disease like Prevention of cancer, Reduction of tumorcell load, Prevention of recurrences and metastases and in Palliative cancer care

Contents of the protocol are:

1. Antinflammatory therapy
2. Antimicrobial therapy
3. Detoxification therapy
4. Antioxidative Therapy
5. Supplementation
6. Immune therapy
7. Hormone therapy
8. Biophysical und physical therapy
9. Psych-oncological therapy
10. Nutrition therapy

It seems to be advice able to collect anamnestic data of the patient at the beginning of the General Protocol of Comprehensive Cancer Therapy to find out what in an individual case had induced the development of cancer. All factors which caused cancer have to be eliminated, to prevent recurrences and metastases successfully.
Long lasting influence of chronic stressors may lead to a decompensation of a variety of systems extracellular and intracellular and may lead to irreversible damage. Cells which find themselves in a life-threatening environment have based on their evolutionary history the option to use survival mechanisms by changing their way of energy (ATP) production instead by oxidative phosphorilation via fermentation. This is the step towards developing a malignancy out of normal cells.

Microbes, chronic irritation (Virchow) or long lasting mental stress (burnout syndrome) are the stressors which can lead to a chronic inflammation which by is mechanisms (inflammatory cytokines , NFkappaB) induce and promote the development of cancer. The same chronic inflammation is a mechanism used by the tumour to growth and to metastasize.

Next step is to analyze deficiencies of the patient and start with supplementation of amino acids, minerals , trace elements and vitamins to increase the compensatory power of the cancer patient, especially when it is are diminished because of tumour reducing therapies or if they are needed to compensate the negative effects of chemo-or radiotherapy.
The time around tumour reducing therapies is of great importance to achieve a long lasting good outcome of the treatment. If at this time the proper steps were done at the right time then cancer can loose its horror.
All cancer patients not just suffer from oxidative stress they also show increased acidity in the connective tissue and some systems at the same time they show alkalosis in their blood. It is necessary to correct these disturbed internal milieu parameters by antioxidants and therapy with buffer drugs.
Most of the conventional tumour reducing therapies enhance per se the oxidative stress in the cancer patient und worsen the internal milieu parameters
Epithelial cells react against the chronic inflammation and the thereby altered environment where they are forced to live in and develop survival strategies in the direction of immortality.
These challenge leads to changes in the respiratory chain and the DNA of the mitochondria and a variety of genetic mutations in the nucleus of the cell, which becomes a cancer cell.
The epithelial cells switch, and this research was done by Otto Warburg and Dr. Coy and other researchers, to anaerobic glycolisis to gain energy by the same way as the Archea has done in former times before they became symbiotic with Bacteria (mitochondria).
To treat cancer successful it is needed to prevent the switch to fermentation and to end fermentation with Dichloracetate. Of great importance is to avoid the intake of sugar and carbohydrates in TKLT 1 positive cancer patients to kill the tumour cells by starving fro hunger.
The therapy with huge amounts of Curcumin normalizes the ATP production in the respiratory chain of the mitochondria, by bridging the disturbed and photon steered process of ATP generation in the respiratory chain (Kremer)
The perioperative therapy should be done with drips of antioxidants like alpha-Lipoic acid, Sodiumselenite (Selenium), Vitamin C with B-complex and L-Carnitine. This protocol should be administered before, during and after surgery.
Halogenated hydrocarbons to increase the narcotic effect of full anaesthesia during cancer surgery should be not used at all times, because the increase the oxidative stress significantly.
The surgical removed tumour should be analyzed on his genetic equipment and tested for chemo sensitivity to get the upmost personalized and targeted therapy and additionally a vaccine should be made from each tumour to have an additional arm for therapy available.
Most important part of the General Protocol of Comprehensive Cancer Therapy is active prevention of recurrences and metastases with the goal to prolong the tumour free survival time of the patient. The protocol should be applied for years to generate good results concerning survival and quality of life of cancer patients.

Photodynamic therapy of malignant tumors with photosensitizer and intravenous Laserblood irradiation

(Frank Andrä, MD, Onkologist and Histopathologist, Sanremo, Italy)

Systemic Photodynamic Therapy of Malignant Tumours.

The possibility to remove malignant tumours by photodynamic therapy (PDT) without relevant side effects And without application of chemotherapy is becoming of more and more interest.
It could be demonstrated that a systemic application of photo sensitizers and light makes sense and can be successful (sysPDT).
Since we have an approved intravenous laser machine on the market every medical centre will be able to offer this treatment.
In this lecture possibilities and risks of the new method of sysPDT will be discussed
I will present 2 different mechanisms of this method: the classical method of tumour tissue destruction by reactive oxygene species (ROS) and effects of light modulating substances.
It will be demonstrated how these methods can be combined dependent from the specific status of the patient.

Photodynamic therapy in precancerousis and biological photo ablation in dermatology und cosmetics

(*Michael H. Weber, MD, Göttingen, Germany)*

It's well known for many years and ensured my multiple studies that low level laser light is well suited for dermatological applications.
There are many reports about healing of chronic wounds and venous and diabetic ulcers.
Besides the classic red laser therapy today also infrared, green and blue lasers are available and used for these treatments.
Laser light enhances microcirculation in the skin and stimulates fibroblasts and production of collagen.
There is also a specific absorption of the different colours to the complexes of the respiratory chain in the mitochondria with enhanced production of ATP, DNA and cell renewal.
The blue laser has an additional bactericidal effect by binding to bacterial porphyrines with production of reactive oxygen radicals leading to death of the bacteria.
The positive effects were shown in many dermatological diseases. Besides chronic ulcers acne, rosacea, psoriasis, neurodermitis and herpes infections can be treated successfully.
After laser therapy a regeneration of the skin was observed so there was the idea to use the effects for cosmetic therapy of wrinkles and old skin. In combination with low molecular hyaluronic acid good and visible effects on skin regeneration can be achieved. After application of a special hyaluronic acid crème laser irradiation will be applied with a special shower applicator including all available wavelengths. A further improvement of the therapy can be achieved by pretreatment of the skin with a photosensitizer crème.
The topically applied photosensitizer will be activated by laser light with complete removal of acne bacteria and the ablation of the superficial layer of the skin will prevent acne scars.
Also damaged skin after excessive exposure to sunlight with actinic keratosis or basalioma can be removed with high success without severe side effects.
This method is recently also used in cosmetic therapy for removal of the superficial layers of the skin inducing renewal of the skin with enhanced production of collagen.
A preventive effect for development of skin cancer is claimed.
Beside topical application of photosensitizers it is possible to give the photosensitzer systemically by infusion for treatment of cancer with metastases. First studies and case reports about systemically applied photosensitizers in combination with intravenous laser blood irradiation are presented on this congress. There are very promising first results but further studies are needed in the near future.

New knowledge about bio- and quantum physical basics of laser therapy

(Hans Romberg, Doctor of Physics, Karlsruhe/Stutensee, Germany)

Phototherapy uses quite different light sources: sunlight (possibly filtered), coloured light, LED or laser. What can be said from first principles about the differences in the usage of light originating from these light sources? What is it, that makes laser light that special?

What is light?

Light as particle

Quantum physics has observed, that energy, e.g. in form of photons, is emitted, or absorbed, as particle. It is impossible to emit, or absorb, an energy amount being lower than

frequency!), and λ the wavelength of the light. The wavelength is about 600 nm = 0.0000006 m in the visible (red) range. Hence we get for the absorbed energy (in any examined time interval) an integer

$$E = h \cdot \nu = h \cdot \frac{c}{\lambda}$$

where h = 6.626 × 10^{-34} J s = 0.000000000000000000000000000000006 J s, c is the velocity of light = 299792458 m/s, ν the frequency of the light (**not** to be confused with the modulation or pulsation multiple of the minimal energy amount of about 3× 10^{-19} J = 0.0000000000000000003 J. [1]

Light as a wave

Photons, the particles of light, do not behave as we assume it for particles regarding our every-day life. If we throw a ball through a mesh wire fence, we assume, that the ball has passed through one of the meshs. Even if we do not look at the ball, and thus we do not know, which mesh it has taken, we still assume the principle. We are sure, that there will always be a mesh through which the ball has flown. **Not** so for photons: if they have got multiple possibilities we can **not** assume, that they select only one. It looks rather like a photon using coincidental all possibilities, in our picture, the ball would fly through all meshs at a time. That is similar to what we are used to for a wave. That is why we say a photon has the character of a wave.

In mathematics, that is possible by using a wavefunction Ψ. The square of the absolute value of Ψ yields the probability to observe a particle at that place. Ψ has mathematical complex values, these are numbers like

$$i = \sqrt{-1}$$

In school we have learned that it is impossible to extract a root of negative numbers. If one tries that nevertheless, and observe what comes out of that, one is led to strange, and beautiful, observations (complex analysis). These numbers are very useful to describe quantum physics. In this regard, these numbers may be looked as being „more real“ than „real“ numbers: It can be proven, that quantum physics is real – and not our every-day assumptions.

If light has the possibility to follow different paths, then it starts as a particle, the wavefunction Ψ spreads as a wave, this wavefunction can pass both holes (fig. 1), and for the observer the waves from both holes add.[2] This sum is now taken as absolute value, then squared, and that yields the probability to observe the particle at that place.

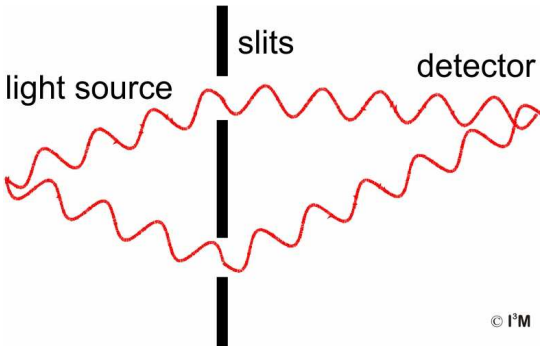


Bild 1: Interference is observed if a wave has more than one possibility to reach the detector.

Fig. 2 shows this effect. On the screen arrive at some places less particles, if we open the second slit, as compared to only one slit open (1+1=0). At other places, more than expected arrives (1+1=4). If one adds up all results one gets (1+1+1+1=0+4), thus no particles are lost. If one does not look at small structures but only to the big picture, then classical physic, and common sense, is valid in most cases.

But contrary for laser!

Laser light is produced by a pure quantum physical effect. The special of coherent laser light is the fact, that not every laser photon does have its own wave; instead, lots of photons are part of the same wave. That is why all photons do have the same properties, they are indistinguishable out of principles. Because we do have lots of particles in the same wave, this wave may have a lot of energy, and thus quantum effects are observable with naked eye. This is observed e.g. in the „graininess“ of laser light observed on a surface, or laser speckles (Fig. 3). These local interferences may lead to a locally strongly variing intensity of laser light (up to a factor of 4). Even in tissue, maybe not too deep, this could lead to locally inhomogeneous intensities, and possibly to islands of polarized light.

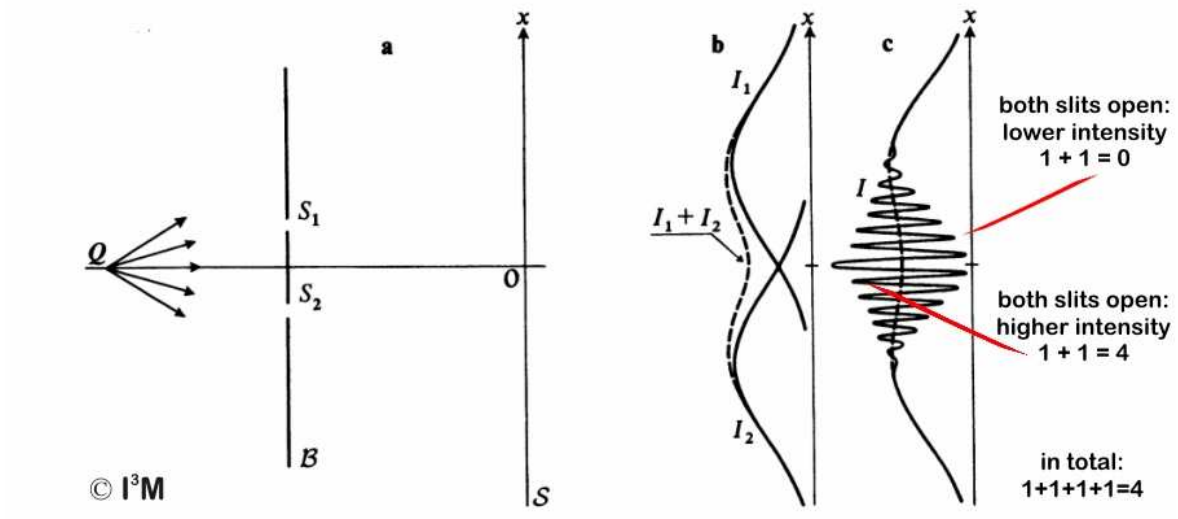


Fig. 2: The intensity observed at a screen is at some places higher, and at some places lower, if both slits are open, compared to the respective intensities if only one slit is open.

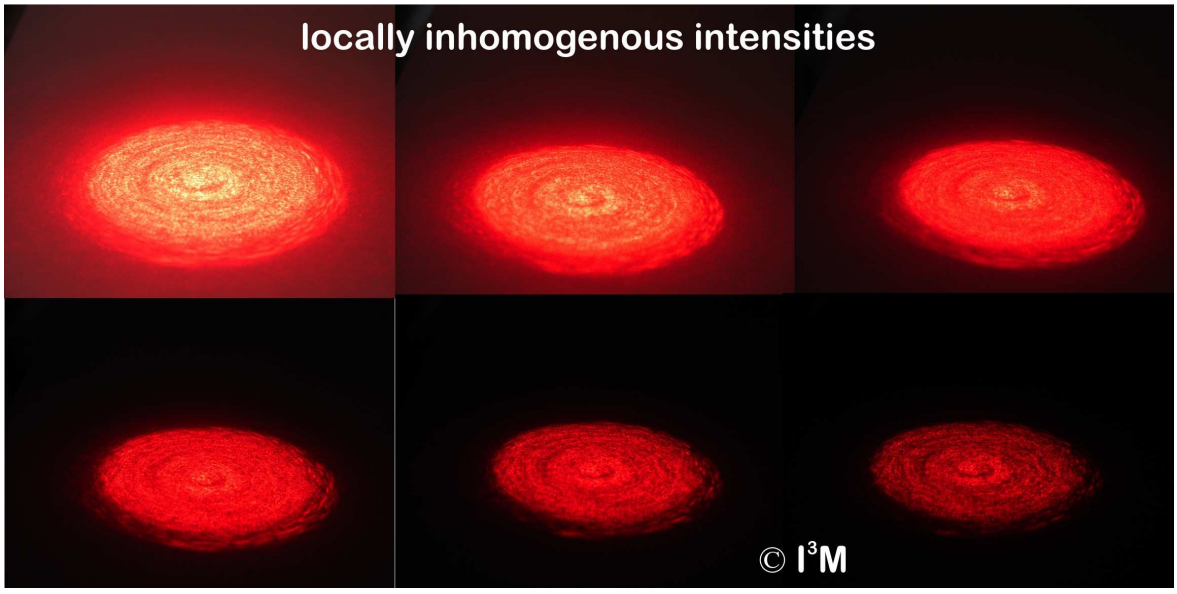


Fig. 3: Locally inhomogeneous intensities in a laser beam. The respective pictures represent different integration times.

Thus, there could be regions having a size of some cells, or smaller, that are lying closely, but are exposed to strongly different laser light intensities. That is impossible from principles for light produced by different light sources. Whether this effect may be relevant for the therapeutical effect, or not, and if so, for which applications and diagnosis, does not seem obvious to me. In the workshops, this will be discussed.

In the lecture (friday, 9:30) the subjects will be:

- basics: you should get a feeling for the abstruse quantum world
- what is power, power density, dose, dose density, energy, modulation, pulsation?
- are laser more bright than sunlight?
- if one looks at a small colour region, are lasers now more bright than sunlight?
- what is the brightness of LEDs, and the brightness per colour?
- are LEDs as dangerous as lasers?
- what consequences can be drawn out of these first principles?
- what can be said about the mechanisms of regulation inside our body?
- biophotons: what might be thinkable, what is impossible?
- are meridians light guides?
- is it possible, that modulated light with dedicated frequencies does have special effects?
- which modulation frequencies seem to be impossible in intravasal laser blood irradiation?
- an example of using CO for regulation and phototherapy for healing – all in nature

New Abdominal Acupuncture (NAAP) with laser needles, a comprehensive new therapeutic concept

(Michael Grandjean, MD, Rüsselsheim, Associate lecturer of acupuncture at the university of Frankfurt, Germany)

New Abdominal Acupuncture with Laserneedles, Michael Grandjean, MD
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Background: By applying the **FAL** (**F**requency related **A**cupuncturepoint **L**ocalisation) within a new abdominal somatotope(Bo[1,2]) the author derived a new, highly effective and quickly responding acupuncture system. **The New Abdominal Acupuncture.**

Methodology:

FAL: A laser pointer emitting photons onto a diseased area induces typical changes in pulse quality. The seasoned practitioner recognizes this specific signature within a somatotope at corresponding points.

This system provides exceptionally good, quick and persistent therapy achievements, treating via needles, or moxibustion, but most effectively with laser-needles. By projecting the somatotope onto the patient's abdomen, the therapy becomes easily and quickly applicable.

Results

The field of application is exceptionally broad: Head aches, neuralgia, neuropathic pains, phantom pain, orthopedic syndromes. Especially well responsive: allergic asthma, hay fever, sinusitis, TMD, chest pain, colitis and many gynecological illnesses.

Explanatory approach:

Nan Ching[3,4], neurogastroenterology and osteopathy provide very good explanatory approaches. The especially good results by laser-needles can be explained by the biochemical and biophysical effects, leading to an increase of ATP and an extreme gain of micro circulation. In the terminology of TCM this means “The laser tonifies and augments Qi, moves blood and thus cures the millions of illnesses”.

[1]Poster Chart “Adominal Hologramm”, Bejing Science & Technology Publishing Press ISBN 7-5304-2952-3
[2]Bo Z, Fu Zhen Liao Ra, Bejing Science & Technology Publishing Press 1999.
Chinese Language Edition ISBN 7-5046-2771-2
[3]Birch, St. Junko I.; Nan Ching**,** Paradigm Publications 1998
[4]Matsumoto, K., Birch, St.; Five Elements and Ten Stems (Nan Ching Theory, Diagnostics and Practice)
Paradigm Publications 1983

Intravenous laser therapy in sports medicine as a new Non-Doping-energizing therapy

(Francesco Raggi, MD, Guiseppe Vallesi, MD, Terni, Italy)

Intravenous laser therapy in sports medicine as a new Non-Doping-energizing therapy

In EGLA Congress 2008 we presented our study on four body building athletes, threated with ten sessions of intravenous laser blood irradiation (IVLBI); we showed that IVLBI is capable to improve physical performance, by enhancing both strength and endurance; we also showed that biological effects last for about four months.

Literturature review we performed to better understand our results, highlighted that IVLBI is associated with improving of microcirculation, increase of oxygen transportation and higher exercise capacity of muscular tissue.

Now we present new experimental data on bikers, confirming the potential application of IVLBI in Sports Medicine; we also present new data from the medical literature, showing new possible mechanisms of action, such as lessening of post-exercise myonecrosis, enhancing of muscular regeneration, powering of muscular methabolism and inhibition of methabolic acidosis.

Finally, we discuss, according to the european laws on this topic, if this method should be considered doping or not.

The „Anti“-Frequencies from Reininger and their practical application in laser therapy

(Manfred Reininger, MD, Waizenkirchen, Austria, Vice President of the Austrian Society for Controlled Acupuncture OGKA)

Substrat	„Negativ“-Frequenz	Positive „Anti“-Frequenz“	Wirkung der positiven „Anti“-Frequenz auf
Psyche	129 Hz	4221 Hz	MP 21, Ni 6 He 8
Vegetativum	112 Hz	3665 Hz	Le 13, KG 12
Sucht	101 Hz	3305 Hz	KG 17, Le 14
Carcinom	108 Hz	3534 Hz	MP 4, 3 E 5
Schmerz	119 Hz	3894 Hz	LTST, Di 4
Entzündung	128 Hz	4189 Hz	MP 4, Le 13
Allergie	104 Hz	3416 Hz	MP 21, Le 13
Tinnitus	125 Hz	4090 Hz	Le 8, Ni 6
Immun	102 Hz	3351 Hz	MP 4, 3 E 3

Laser needle acupuncture of therapy resistant psychological blockage areas in chronic pain patients

(Naomi, Cayemitte-Rückner, MD, Centre for Pain Therapy, Hamburg, Germany)

Since neural therapy (therapeutic local anaesthesia) was developed we know more about blockages in acupuncture treatment.

With more or less success we treat scars, tooth problems and other focal problems in practice of natural medicine.
But very often we have psychological blockages, which are often not regarded as important.
In consequence patients will not show an adequate reaction to our therapy and we call them “Non Responder”.
Since 1996 In am working with the so called “mastoid-acupuncture”, a microsystem for acupuncture below the ear.
There we can find a special master point for psychological blockages.
By treatment with laser needles and a special frequency it is possible to remove quickly all problems which are connected to psychological blockages.
After a short introduction in the mastoid acupuncture system I will present practical case reports and demonstrate their importance for treatment of chronic pain syndromes.

Conflict relationship of healing chance and medical risk

(Reinhard Bodenburg, Doctor of Laws, Lawyer, Göttingen, Germany)

Medicine is not possible without development. Research, new surgical techniques and technical progress opens new medical device opportunities that previously have been difficult to imagine. Within the new treatments, in particular, the practice so-called outsider procedure attracts chronically ill persons. Patients want to understand themselves in the new therapeutic opportunities to participate. For the physician, this situation leads to considerable risks. In principle, every physician owes his patient medical treatment, according to recognized rules of medicine is needed to bring about healing. Under the principle of the freedom of existing doctor the doctor decides on the basis of his medical knowledge and his medical conscience on the choice of treatment method. The treatment is now regularly using the standard treatment equated. The standard in medicine represents the current state of scientific knowledge and medical experience; to achieve the objective medical treatment is required and in the testing phase, has proved its worth. It follows that curative treatment is available only there, where a medical standard is given, and this is also observed.

The application of a misfit method therefore holds in principle for the physician the double risk that he determined by the deviation from the standard method of causing bodily harm to the patient because he is not on a standard, can fall back, but do injury to the patient, if an inherently displayed and known method of treatment is stopped and an alternative method of treatment applied may not bring the desired results. The law allows the attending physician to deviate from the standard method; otherwise progress in medicine is impossible.
The risk of the use of an alternative method in a legally secure basis to practice requires that the doctor compares the methods to be used in a vast and efficacy of this procedure. It is also essential prerequisite that the patient to be treated on to defend the fact that an outsider as a method not yet recognized standard treatment is applied and that the patient in this alternative treatment expressly agrees in writing. It is necessary, in addition to a basic education, the presentation of other possible treatment alternatives, including the standard method, so that the patient has a real option for treatment to be discussed. The boundary of this information is mandatory, however, there to draw, where the methods are the same risks.

Alternative treatments - such as the laser needle acupuncture and intravascular laser irradiation of blood - and the need for special medical education requirement is therefore a relative interaction. The intelligence must be more careful, depending less statistical material or less results depending on the success of alternative treatment method available. Is the treatment method not only scientifically controversial, but it is even contrary to accepted therapies; a comprehensive level of information is urgently needed for patients to medical liability risks.

Photodynamic therapy of bladder cancer, a case report

(Dr. Med. Dipl. Ing. Internist, Thomas Giesen, Wenden, Germany)

In the last years there are improved techniques for transurethral resection of bladder tumours with photodynamic therapy.
5-Amino-laevulinic acid will be specifically uptake by neoplasitc cells and can be stimulated by light of special wavelengths with fiberoptic technique.
So the resection can be performed with better accurateness and with better chance of complete tumour tissue removal which is important for possible relapse.
The aim of our group is to standardize the photodynamic diagnostic and therapy and perform long term analysis on own patients about the value of the presented methods.
Photodynamic therapy is however only in Canada approved in Germany only for diagnostic purposes.
In this lecture 3 different methods will be presented. Furthermore I will present the so called ECT technique. This soft cancer therapy showed in a Chinese study partial or complete tumour removal of about 68 %. In Germany these results are disregarded for unknown reasons.

Replacing of Bio photons Light by Appropriate Laser Light Sources

(Farrokh Najafi, Physic Engineer, Tehran, Iran)

Electromagnetic interaction is the main physical in biology .therefore; we must expect influence of photons of proper wavelengths on biological systems.
By using cytometric, photometric and radiochemical methods it is shown that the increase or decrease of cells growth depended on the applied wavelengths.
It is one of the most surprising facts and fundamental root for the understanding of low level laser therapy that dynamic of open nonlinear dissipative systems can be triggered by photons of proper wavelengths.
Human phagocyting cells are emitting light which can be detected by single photon counting methods. Singlet Oxygen molecules are the main sources of this light emitted 480, 570, 633, 760, 1060 nm wavelengths. On the other hand, human cells can be stimulated by low power laser light of just these wavelengths.
Light of phagocytes may be replaced by appropriate light sources light of activated oxygen, light of ionized oxygen, thus triggering immune regulation.
This thesis allows comparing laserpunture with needle acupuncture because a prick must lead to an attack of phagocytes thus producing biophotons in the region of acupuncture and when we use a

proper coherent laser light fundamentally we are replacing of these energetic quantums by lack energetic quantums of human's chemical reactions.
If we chose the best energetic quantums by low level lasers we can claim we are very near to our better influence therapy.

Study of the Efficacy of Low Level Laser Therapy in Myocardial Perfusion of Patients with chronic stable Angina

(Dr. med. M. Kiavar, Shaheed Rajaei Cardiovascular Medical &Research Center, Iran University of Medical Science, Tehran, IRAN)

Background: In the vast majority of patients with angina pectoris caused by underlying coronary artery disease, effective treatment is available. Most patients respond to antianginal medication, and for the remainder either percutaneous coronary Revascularization or coronary artery bypass grafting can be performed. (1)
Low-energy laser radiation through its direct influence on tissue repair processes without heating effect may have vital importance in the therapy of patients with advanced coronary artery disease (CAD).(2)
The purpose of the study was to assess the safety and efficacy of low energy laser therapeutic procedures in patients with advanced multi-vessel CAD not suitable for myocardial revascularization. Many clinical parameters as well as results of laboratory tests were evaluated to find any indices of potential impact of the laser therapy in the examined population.
Method: 22 patients with advanced CAD were assigned (mean age 61, male gender 68.1%, 100% with history of myocardial infarction), to undergo two sessions of irradiation of low energy laser. Each session was 10 time and each time of radiation was 20 min. Pre laser evaluation was included, blood pressure, heart rate, basic biochemical test , ECG, 6 minute walk test, TTE, gated MPI. Before the first and the second period of laser therapy with 3 months break pre and post laser parameters, were measured.

Results: No side effects associated with the laser biostimulation or performed clinical tests were noted. Improvement in SBP, Higher functional class, longer distance of 6-min walk test in both group were noted. There was significant change in myocardial perfusion of most anterior segments of heart by single photon emission computed tomography (SPECT) (visually and by computer soft ware)($P<0.05$). There was no significant change in DBP, HR, and in LVEF by TTE and gated MPI.

Conclusion: An improvement of functional capacity and myocardial perfusion and less frequent angina symptoms during 6-min walk test, without significant change in left ventricular function by TTE and gate MPI, were observed. Low level laser in short term was a very safe method. These encouraging results should be confirmed in a larger, placebo-controlled study.

Key word: low level laser, chronic stable angina, myocardial perfusion imaging.

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Intravenous laser therapy of neurological and psychiatric diseases with Intravenous laser blood irradiation

(Norbert Schumm, MD, Neurologist, Berlin, Germany)

Background:

Multiple Sclerosis (MS) is a disease with a relapsing or chronically progressive course.
As a general rule, the treatment performed today is immunosuppressive.
Intravenous laser blood irradiation (LB) with a Softlaser (low level laser therapy) is anti-inflammatory, immune-regulating, rheologic and regenerative. Lately, studies on the efficacy of therapeutic measures are increasingly examining the change in the quality of life as a result of this treatment.

Clinical Question:

What influence does intravenous LB have on the quality of life of a patient with MS?

Approach:
Intravenous LB with the “weberneedle blood system” was used with 20 patients.
A fiber optic HeNe diode laser with a power of 5mW and a wavelength of 658 nm (red light) is used. SF12 is a standardized system to ascertain the physical and mental quality of life, even with MS.

Results:
A significant improvement in the physical sum scale from 38.2±5.8 before treatment to 43.4±8.1 points directly after the treatment was achieved ($p=0.002$). The mental sum scale likewise improved significantly from 28.6±6.9 to 43.6±13.0 points ($p<0.001$). In the long-term course, a further non-significant trend towards continued improvement on both scales could be observed
(physical sum scale=46.9±7.3 points; mental sum scale=47.6±13.1; p for both scales in comparison to the scales directly after treatment=n.s.).

Conclusions:
The laser blood irradiation led to a highly-significant improvement in the quality of life of patients with Multiple Sclerosis.