

COLOR IN ALTERNATIVE THERAPY

Benchea A.^{1*}, Babusca D.¹, Morariu M.²

¹“Al.I.Cuza” University, Faculty of Physics, 11, Carol I Bvd. 700506, Iasi, Romania

² Zepter International Consultant on medical products, Iasi, Romania

*e-mail: bencheacelia@yahoo.com

Colors are perceived by our eyes in all possible shades and intensities, and they affect our entire body. Chromo therapy is a natural method of treatment that uses the properties of colored light to produce favorable reactions to restore health. The Biopton lamp system is a medical device for therapy with light, which acts by supporting the regenerative capacity and balancing the body and helps the body to activate its own healing potential. A performed statistical calculation demonstrates the color efficiency in health.

Keywords: color, chromotherapy, properties of natural color spectrum, statistical calculation, Biopton therapy system.

Culorile sunt percepute de ochiul nostru în toate nuanțele și intensitățile posibile, și care ne influențează întreg organismul. Cromoterapia este o metodă naturală de tratament care utilizează proprietățile luminii colorate pentru a produce reacții favorabile restabilirii sănătății. Sistemul cu lampa Biopton este un aparat medical de terapie cu lumină, ce acționează prin sprijinirea capacităților de regenerare și echilibrare ale corpului și ajută organismul să-și activeze propriul potențial de vindecare. Un calcul statistic efectuat ne demonstrează eficiența culorii în ajustarea stării de sănătate.

Cuvinte-cheie: culoare, cromoterapi, proprietățile culorilor din spectrul natural, calculul statistic, sistem de terapie Biopton.

INTRODUCTION

Chromo therapy is a natural method of treatment by color, which is easily integrated within the disciplines of complementary treatment. Chromo therapy focuses on human cells property of being influenced by electromagnetic waves. When human beings feel a disease, the body's electromagnetic field is unbalanced and chromo therapy's role is to adjust it. This technique includes simple principles of biology and psychology that relies on the laws of light, optics and electromagnetic phenomena. The luminous radiation contains

the radiation in the visible, ultraviolet, infrared field.

Color is a form of electromagnetic energy. It is a good remedy in herbal medicine. We are permanently and totally surrounded by electromagnetic waves, each of them having a specific wavelength and a certain speed of vibration (frequency).

The amount of energy of a light beam is proportional to its frequency, so that a light beam with a higher frequency has a higher energy than a light beam of low frequency.

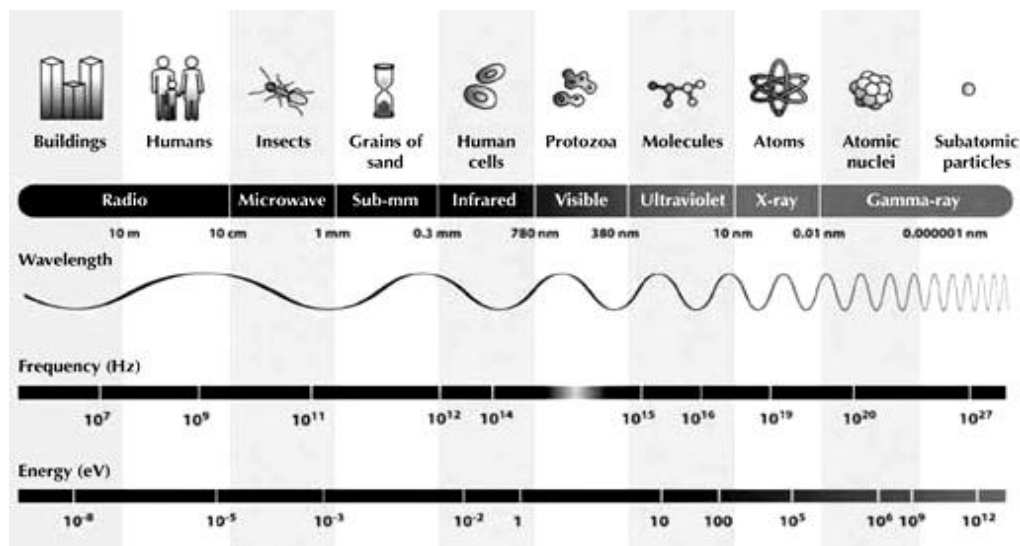


Fig. 1. Diagram of electromagnetic waves

The spectrum of colors and their meanings are concerns of chromo therapy, this one being another approach and treatment of body found in deadlock.

Chromo therapy is a set of techniques that uses the properties of colored light aimed to produce adverse psychological adjustment and health recovery.

The colors are divided into: warm colors (red, orange, yellow, brown), cold colors (blue,

green, purple), neutral colors (white, brown, beige). Warm colors, increase the energy flow and invigorate the tissues, stimulating blood circulation. Cold colors, slow the energy flow for inflammatory diseases and relaxation. Neutral colors, clean the energy drain, while mixed colors are regenerating, nourishing and healing. The complementary colors occur interest from optical point of view for getting other colors than the combined ones.

Table 1. Field of color

Nr.	Color	Wavelength range	Frequency range
1	red	~ 625 - 740 nm	~ 480 – 405 THz
2	orange	~ 590 – 625 nm	~ 510 – 480 THz
3	yellow	~ 565 - 590 nm	~ 530 – 510 THz
4	green	~ 520 – 565 nm	~ 580 – 530 THz
5	indigo	~ 500 – 520 nm	~ 600 – 580 THz
6	blue	~ 430 – 500 nm	~ 700 – 600 THz
7	violet	~ 380 – 430 nm	

In the 17th century, scientists were able to decompose the light rays by using a prism due to Isaac Newton, eminent physician. When the white light passes through a prism the decomposition into components that make up

the natural color spectrum (ROGVAIV): red, orange, yellow, green, blue, indigo and violet (the 7 primary colors of the rainbow) takes place.

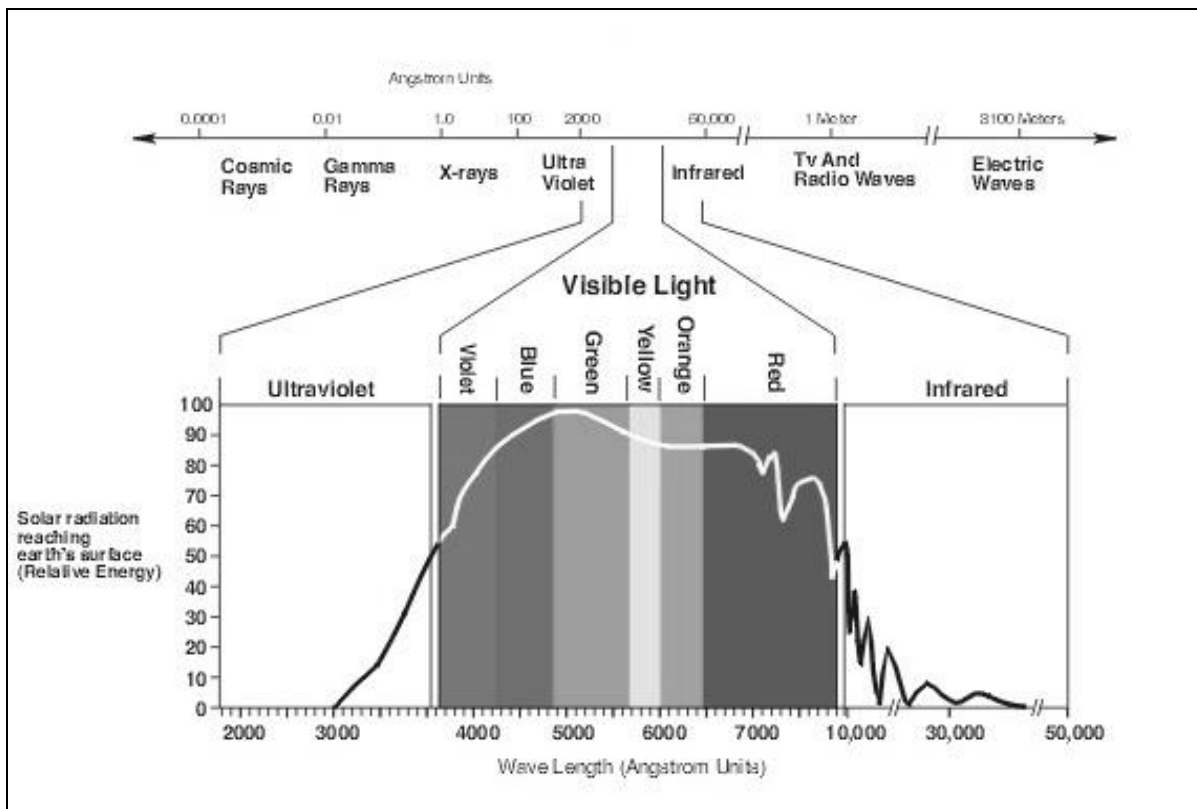


Fig. 2. Electromagnetic spectrum

Each of these colors is a monochromatic electromagnetic radiation, which has a certain frequency and wavelength and carries specific information, generating molecular effects in living structure.

The color therapy is based on the colors of the rainbow, which has been existing since ancient Egypt [1]. Chromotherapy targets the energy rebalancing the body and health, and the effects of colors action on the human body which can be set up by following certain functional and biochemical parameters before and after applying this natural therapy.

Our entire existence is full of colors' presence. It is useful to know the effects of each color on human being [2]. The experimental researches let us to understand that human being is not indifferent to the coloristic call coloristicii in the affective sphere, in the mood and in terms of health.

Colors are perceived by our eyes in all possible shades and intensities, being around us they acts on the brain, endocrine glands and release of hormones or other organic substances in the body, thus contributing to harmonize / harmonization or on the contrary, to psychical disorder influenced then in somatic. The disease symptoms are a sign of a lack or improper use of color and light by the cells and organs of the human body, due to factors such as lifestyle, environment. This imbalance can be corrected using the 366 frequency selective color.

Each color emits specific vibrations that affect living cells. The eyes are among the most sensitive organs exposed to colored rays, because they turn them into signals that are then decoded in the brain. But the light traverses / penetrates the skin, the muscles as well and even the skeleton, triggering chemical changes of the tissues. The human body receives waves of different colors, which have the ability to nourish and heal.

Chromotherapy is based on the fact that psychological functions respond to different colors [3]. Pineal glands (attached to the brain) control the daily rhythm of life. When light enters our eyes / skin, it crosses the neurological pathways towards the pineal glands. Different colors (wavelengths and different frequencies) are connected to certain

areas of the body and have various effects on physical and mental functions.

The eye and the human brain processes and decode the received information and manage to determine the color of the reflected rays transmitted through the object. The luminous receptors are those which transmit the information from the eye to the brain and plays an important role in the creation and perception of color sensation.

Chromotherapy can be used with other complementary therapies (aromatherapy, massage, and other) [4]. As practical methods for applying color therapy we can remember:

The sunlight focusing on the affected area – the partial or total exposure of the body to the sun exposure, the body being completely naked for 20 minutes.

The use of "rainbow water " - water is kept in a colored container and exposed to the sun or to a source of colored rays at 20°.

"Breathe of colors" - normal breathing, but imagining that the air is colored.

Colored light – the white light passes through colored filters and is directed to parts of the body or to the entire body. The source of light can be a photographic lamp to which colored filters can be differently applied or a slide projector bulb of 150-400 watts to which a colored filter is adjusted.

Watching a color - or flashes of colored lights are made for 30-60 minutes sitting down in silence or listening to a proper song.

Garments - certain colors of garments filter the light and the body absorbs it. Choosing the right shade of the garment can improve both mood and health problems.

Consumption of colored food - added in our diets it produces certain reactions in the body, nutritionists say that, according to color foods can improve the digestion, appetite and mood, chromo therapeutic people say that when we eat a certain food, the body absorbs the nutritive substances it contains, as well as their color and energy.

Using colored semiprecious stones - which besides their intrinsic properties and they provide a path to spiritual healing through the colors they display.

Interiors color- finding adequate colors for rooms can lead to the improvement of

mood, of the yield at the working place and of health.

Inner view/ visualization - is a method of treatment which is based on the power of concentration, the person who is suffering from a disease should imagine a ball of colored light/ a colored light sphere that surrounds the affected organ or the entire body.

Laser - is a particular form of chromo therapy and relies on the use of colors through their specific wave lengths (radio waves).

The Prescription of the colored light is indicated especially in cases of: premature skin aging, mental instability, power failure, fatigue, depression, anxiety, insomnia, obesity, immune deficiencies, attention disorders, menstrual disorders, decreases of libido, headache, swelling of extremities, abuse of drugs, suicidal tendencies, joint problems, fractures, burns, wounds etc.

Color therapy has been used since the Middle Ages, when the medicine men were appealing to colors to cure various emotions, illnesses or diseases. Thousands of years ago, in the Far East, China and India, filters of different colors obtained from plant pigments were used to treat various diseases.

Chromo therapy or color therapy has been practiced since ancient times (Heliopolis, Egypt, Iran, India, China) and people have acknowledged the healing properties of colors and they have expressed them in different ways.

Hippocrates, the great physician of antiquity (and scientist), was a resolute supporter of the therapeutic effect of sunlight, in which all colors are present.

Even the great oriental healer Avicenna (980-1037 AD), in one of the 450 of his works, treats the influence of color on mood, and health [5].

CHARACTERIZATION AND USE OF COLOR

Chromo therapy is used as a helpful method of treatment and specialists who use it acknowledge that it contributes to the improvement of suffering by influencing directly or indirectly certain organs, by influencing the patient's psyche and mind. It is

important to know, according to the disease, what color will be beneficial for healing.

Red is considered a universal stimulant, it is the color of passion and optimism, it enhances the activity of any kind, it is the strongest color, the color of fire, blood and force of life. Due to its effects, for therapeutic use, moderate doses of red blue and green are generally recommended. Applying the red monochromatic light, speeds scarring and tissue healing are hurried up.

Indications: anemia, physical weakness, mental depression, rheumatic pain, fatigue, paralysis, tuberculosis, respiratory (bronchitis, colds), stress, blood disorders (poor circulation, hypotension), constipation, diseases related to the endocrine system, impotence.

Contraindications: inflammatory states, emotional disorders, hypertension, it is gradually used to choleric, irritable and stressed persons, color excess may cause conjunctivitis, fever.

Orange is considered the most intense color, a mixture of physical plan (red) with the mental plan (yellow). It is the color of heat, sensuality and emotions, it indicates optimism, cheerfulness, courage, love and fidelity, vitality, joy, ambition and lust for life balance. The electro-magnetic energy of orange color is on the same frequency vibration with the DNA chain (regenerating effect, anticancer).

Indications: in anxiety, depression, hypothyroidism, kidney and lungs diseases, spleen disorders, pancreas, nutrients assimilation, asthma, bronchitis, colds, epilepsy, gallstones, gout, tumors, menstrual disorders, fatigue, kidney diseases, rheumatism stress, disappointment, pessimism, fear, sexual disorders, overcoming inhibitions

Contraindications: to people under stress, senile dementia, asthma, hysteria, spasmophilia, hallucinations, it develops problems, disturbances in the small intestine and colon (constipation). Used in excess or incorrectly, it may generate extravagance, worries, vanity, unjustified fear, excessive emotion, memory problems and excessive culpability, excessive modesty, frustration, repression of natural intentions.

Yellow is the warmest, the most expansive, the most animated and the most cheerful, it is the sunlight, it invokes gold,

brilliance, energy, warmth, life, divinity, it causes mental activity, intelligence, wisdom, harmony, exaggerated analytical spirit.

Indications: in liver diseases, gallbladder disease, bloating, flatulence, cellulitis, colitis, constipation, diabetes, dyspepsia, eczema and skin disorders, edema, nervous exhaustion, spleen, small intestine, hemorrhoids, indigestion, headache, paraplegia, it strengthens the muscles and facilitates the digestive functions in psycho-neurosis.

Contraindications: fever, inflammation, heart palpitations, delirium, super-excitation. Prolonged or improper use leads to acidity, ulcer, cirrhosis, cramps or hemorrhoids, feelings of helplessness and anxiety, greed, predisposition to poor digestion.

Green is a soothing, mediator color, situated between hot and cold, it facilitates nerve disconnection, it symbolizes life, growth and rebirth, faith and healing, kindness and reconciliation, love, joy and optimism, color balance and self-control.

Indications: asthma, back pain, colds, cramps, erysipelas, fatigue, fever, heart disease, liver disease, hypertension, irritability, laryngitis, malaria, cancer, neuralgia, neurological disorders, sleepiness, ulcers, venereal diseases, neuroses.

Contraindications: The rejection of green color indicates, stiffness, inadequacy, intolerance, fanaticism, hostile reactions, jealousy, envy. Used in excess or green color indicates insecurity, greed, lack of self confidence, hate, lie.

Blue is the coldest and the purest of colors, it is the most immaterial of colors. It is a relaxing, soothing color with effect on the nervous system. It increases the rate of metabolic reactions and it is used in wound healing. Blue is the color of transcendent wisdom, harmony, clarity.

Indications: disturbances, to hyperactive children, gingival abscesses, toothache, throat diseases, throat pain, goiter, thrush, burns, colic, biliary crisis, nervous disorder, diarrhea, dysentery, headache, epilepsy, fever, chills, hemorrhoids, cholera, jaundice, inflammation of the intestines, eyes, sunstroke, insomnia, hysteria, menstrual pain, measles, pruritus, palpitation, rheumatism, spasms, wounds,

infections with bacteria and viruses, vomiting, insects stings, hot flashes (menopause).

Contraindications: scarlet fever, pathological thirst, stress.

Indigo/purple is a dark blue, the combination of intuitive intelligence and spirituality, expressing the wish for knowledge and finding the truth, attraction to paranormal (clairvoyants, healers), sense of responsibility, developed intuition, it purifies and calms, it influences seeing, sinuses and cerebral hemispheres.

Indications: in appendicitis, asthma, bronchitis, cataracts, seizures, delirium tremens, dyspepsia, deafness, eye disease, hyperthyroidism, nose bleedings, paralysis, pneumonia, tonsillitis, whooping cough, migraines, sinusitis, obesity, dementia, hallucinations, rheumatism, in obsessions.

Contraindications: used in excess it indicates the absence of spiritual concerns, lack of faith, paranoia, neurological and genetic disturbances, and intense erotic imagination.

Violet is the last color of the rainbow, it is related to spirituality and religion, it harmoniously combines the mental with the emotional, the physical with the spirit. It is a sacred and noble color, resulting from the combination of dark blue (desire / wish for knowledge) and red (dynamism).

Indications: in bladder diseases, and kidney cancer, abnormal bone growth, cerebrospinal meningitis, concussion, cramps, epilepsy, mental disorders, neuralgia, rheumatism, sciatica, skin diseases, tumors, neurosis, it improves digestion.

Contraindications: people suffering from neuroses or other psychiatric disorders. Rejecting this color is means disappointment, neglect ion, fear of socialization, obsession, disillusion, spiritual involution, carrying off faith.

EXPERIMENTAL METHOD AND STATISTICAL

Biopton Light Therapy System [6] is a medical device with light therapy, so that the emission of light by Biopton such issue is similar to the part of electromagnetic spectrum produced by the sun, but that does not contain ultraviolet radiation. Biopton acts by

supporting the regeneration capacity and balancing the body and helps the body to activate its own healing potential. Since its coming into tissues, the solar energy helps the bio stimulation process, stimulating several biological processes from the body in a positive way which thus improves body functions.

Biopton provides a new and effective treatment, easy to use, which can be used in medical institutions, at home or within sports centers and postoperative recovery centers with no known side effects, has a short duration of treatment.

Biopton has many / multiple applications in medicine, including: wound and tissue healing; in rheumatology, it improves the sleep; in sports medicine, it allows quick rehabilitation of muscles and joints system; it is the treatment for contusions, dislocations, tension, spasms, cuts, bruises; it is also applied in physical therapy and rehabilitation.

Biopton has the following characteristics:

Polarization: it uses polarized light, there are oscillating waves in parallel planes where the emitted light reaches a stage of polarization of 95%, which increases the high degree of penetration. No UV rays or significant heat are emitted.

Polychromatic: the light is a polychromatic one, it does not contain a single wavelength (the laser) but several wavelengths both from the visible and the infrared field, the wavelength is between 480 nm-3400 nm, it does not contain ultraviolet radiation.

Incoherence: contrary to laser light, Biopton light is incoherent; it denotes that the beams are not synchronized.

Low Energy: the light has a low energy density, with positive Bio stimulators effects and stimulates various biological processes throughout the body.

If Biopton Light Therapy device is oriented perpendicular to the skin surface, the energy contained in the emitted light penetrates the skin tissues and stimulates the amelioration of biological reactions that help to improve skin appearance and structure [7-13].

Biopton therapeutic devices use 7 colors (red, blue, yellow, green, orange, indigo, violet), with 5 focal points (energy supply,

power and endurance, skin and body tissues, metabolism, start from inside), which are based on the principle of stimulating the chakras including the benefits of light. This therapy has been accepted as a new form of treatment in prevention, therapy and regeneration of the human body.



Fig. 3. System biopton light and colored filters

Every year, millions of people worldwide suffer from diseases and injuries. Only in Europe:

- 60 million people suffer from trauma
- 1 of 5 adults suffers from chronic pain
- 100 million people suffer from muscle and joint pain
- 100 million people are affected by arthritis or rheumatism
- 67 million people suffer from back pain in the lumbar and the upper area
- 4 million people suffer from wounds
- 12 million people suffer from TAS (seasonal affective disorder).

The standard treatment for these medical conditions is that of the medicines (allopathic medication) which have many potential side effects including: heart problems, liver problems, kidney problems, digestive problems, diarrhea, allergic reactions, nausea, dizziness. Some of the most effective ways to avoid medication side effects are the alternative and complementary therapies.

The successful use of light in medicine has a long history and even ancient civilizations-the Greeks, Egyptians, Arabs, understood the importance of light on health and its curative effects on humans. There is no life without light, because light is the main source of life and energy. Scientifically and medically it was turned out that many diseases and mental disorders are caused by the lack of light [14]. We spend 90% of time indoors without natural light, it is dangerous to our health and causes many diseases.

"Heliotherapy" was the first therapy with natural light used as an efficient medical treatment in preventing and treating various medical conditions.

In 1903 dr. Niels Ryberg Finsen, Danish physician, won the Nobel Prize awarded for phototherapy, marking in this way the acceptance and use of light therapy in modern medicine.

In 1933, the Indian doctor Dinshah Ghadiali [15] published a treatise in which he states that diseases are caused by the preponderance or lack of color. Color Therapy has developed through the intensive research of D. Ghadiali, inventing and the chromo therapy device called Bioptron as well.

Several patients have received treatment with Bioptron polarized light and color therapy with Bioptron device to which color filters have been added for 10 days.

The patients were initially subjected to questions and depending on the severity of diseases or ailments were in particular treated by polarized light and color therapy for a more efficient healing. The study was conducted to evaluate the effect of polarized light and color

therapy in wound healing and to improve general health.

A polarized light source (Bioptron lamp) was used with the following feature: 400-3400 nm wavelengths, the degree of polarization > 95%, the specific density of the power of 40mW / cm², the light energy per minute of 2.4 J / cm².

Each patient has been daily treated for 10 days with polarized light for 10 minutes at a distance of 10 cm and with the colors of the color filters attached to the device depending on the disease. Some particular considerations of the study it have been followed for 10 days: the color of the lesion, the degree of epithelization, the degree of inflammation, the tissue scarring and the subjective feeling of the patient.

The following images illustrate some of the many cases we dealt with Bioptron light (the images are taken from the literature of specialty but they are carried out in collaboration with people consulted by medical devices that are based on specialized medical training).

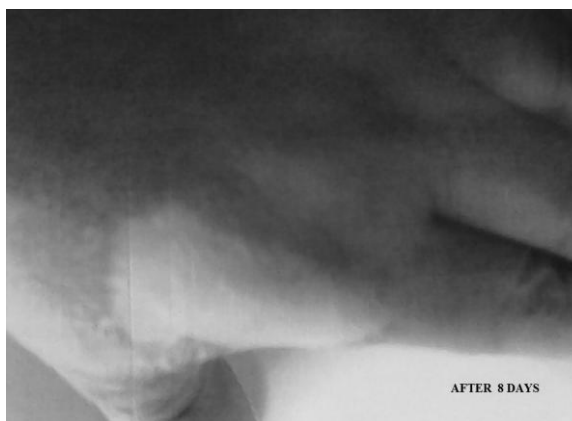


Fig. 4. Evolution of burns before and after application of the therapy

It can be noticed in Fig. 4 that the use of Bioptron light helps to heal and regenerate the damaged tissues, in this case a burn on the left hand, the color becomes lighter and the wound cleans and closes, reaching a total healing of the burn (because the wound was in medium

healing phase) and the patient's subjective feeling is very good.

Fig. 5 shows how the wound in the end stage begins to heal, and the color of the foot and of the lesion changes and the degree of inflammation decreases.

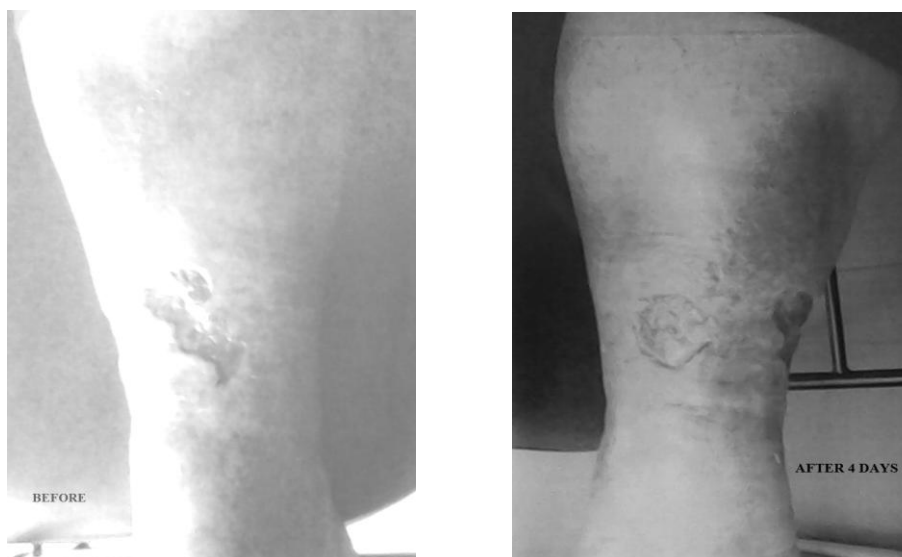


Fig. 5. Stage of a varicose ulcer before and after use of Bioptron light

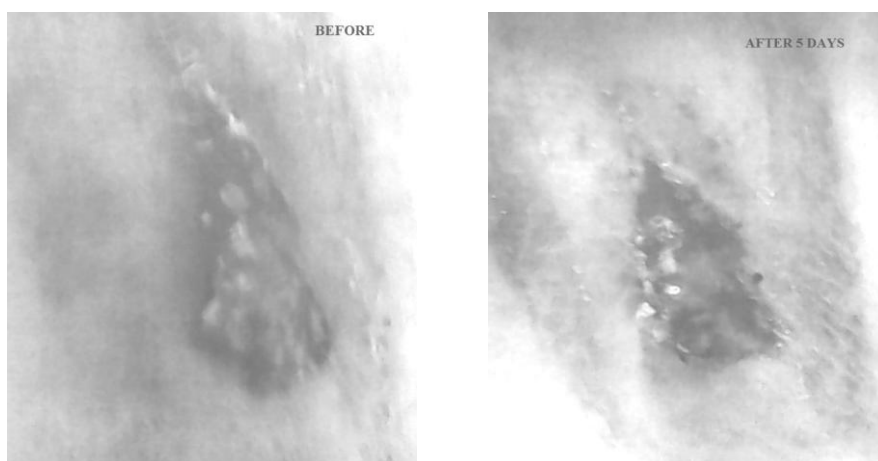


Fig. 6. Stage of a diabetic ulcer before and after light therapy

Be noticed in Fig. 6 how the wound in the initial stage has an abundant leak, it begins to heal, the ulceration stops, it clots, the lesion

changes in color, and the subjective analysis of the patient is good.

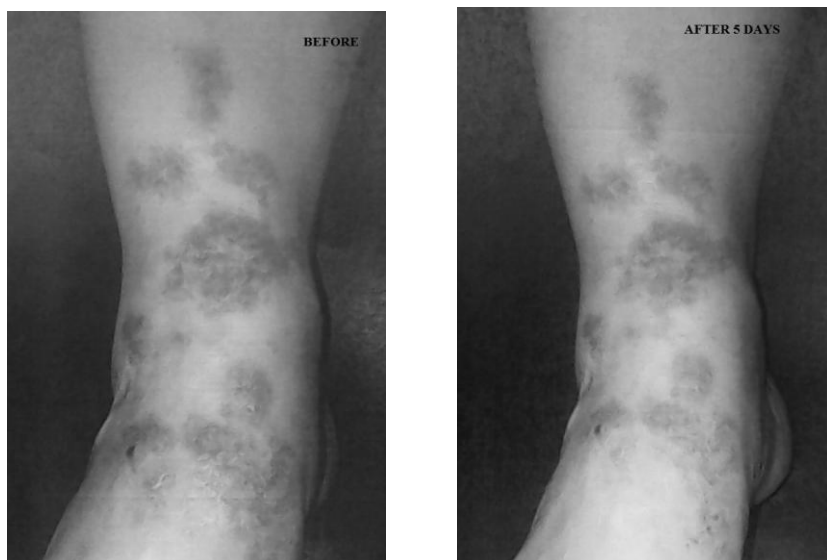


Fig. 7. Dermatological Status (Lichen Planus) before and after therapy

From Fig. 7 it is seen how a dermatological disease such as lichen plant which is an autoimmune disease may improve in a few sessions of therapy with light, the stains and the leg color change, the stains appear smaller and less pronounced, the degree of epithellization is pronounced and the patient's subjective analysis is favorable for treatment.

In all 4 cases and in other cases that were treated with Biopton polarized light and with the color therapy there was a favorable change of all private considerations (color lesion, the degree of epithellization, the degree of inflammation, the scar tissue and the patient's subjective feeling), which proves the efficiency of the action of the light in treating the disease. After the treatment of various diseases to people who have undergone therapy with Biopton polarized light were asked to express their opinions and to writes down their own subjective observations about this treatment. Thus we have:

- The Patient with lombosciatics and bursitis: "The amelioration of the back pain after the first 4 sessions, I found out after 10 days that the pain disappeared and the general state of health improved."

- The Patients with spondylitis and osteoarthritis: "The pain from the inter vertebral joints ceased - 2 lombosciatics joints, two coxo-femoral joints, after 22 sessions 3 week."

- The Patient with rheumatic and hyperthyroidism "The pain alleviated, the choking sensation and cardiac arrhythmia disappeared, I found out increased mobility of joints."

- A 79-year-old patient with osteoarthritis, deforming arthritis, allergy,

sinusitis and digestive problems: "After 6 sessions, choking sensation and knee pain disappeared, bloating, arthritis ameliorated, I sleep better."

- The Patient with gonarthrosis, gastritis and cervical spondylosis "After 9 sessions, the pain and bloating disappeared, knees gained a good mobility, the swellings especially at the right knee disappeared I can climb up and down the stairs more easily."

- The patient with bilateral medium hearing loss, right frontal sinusitis, arthritis, post fracture left wrist, "I have benefited of treatment with Biopton polarized light, in all diseases for 10 days. I mention that the relief of symptoms after following the treatment with Biopton is not a self-suggestion but a reality. "

Unlike Light Therapy, Color Therapy programs, the colors obtained by attaching the Biopton color filter device is applied to acupuncture points, acupuncture meridians segments, areas of energy, reflex areas. Using the seven colors of the spectrum, Color Therapy helps to the stimulation of the body's healing process.

A statistical study was performed on 37 patients (female and male) aged 40-77 years, who responded to the questionnaire on medical issues, including the most diseases.

Table 2. Categories of age on the 2 sexes

Nr.	Ages	No. sex female	No. sex male
1	40-50 years	5	2
2	51-60 years	13	5
3	61-70 years	3	4
4	71-77 years	3	2

Table 3. Incidence of disease among respondents according to age

Ages	Number of people						
	Rheum a-tism	Cardiovascu lar diseases	Overweig ht	Low immunit y	Allergy/ Respiratory deficiencies	Dermatologic al diseases	TAS
40-50	5	7	5	4	3	4	2
51-60	14	13	12	9	9	2	9
61-70	6	6	4	3	3	2	2
71-77	4	4	2	2	3	1	2

As shown in Table 2 and 3, most affordable and most vulnerable is the age of 3, most of women suffering from rheumatism in large proportions having cardiovascular disease and overweight.

Performing a statistical calculation based on the data presented in Table 4, we calculated the percentage for each color (Table 5).

Table 4. Application Guide polarized light and colors in different conditions

Nr.	Diseases	Problems / Symptoms	Duration of treatment	Number of sessions	Cromotherapy
1	Burns	Pain, bleeding	4-10 minutes	2 times per day	blue (4 min) orange (4 min)
2	Ulcerative Thrombophlebitis	Bleeding, pain	4-6 minutes	2 times per day	yellow (4 min) green (4 min)
3	Leg ulcers	Bleeding, pain	2-8 minutes	2 times per day	violet (5 min) yellow (1 min)
4	Rheumatoid Arthritis	Pain / swelling / stiffness in joints	4-10 minutes	2 times per day	red (5 min) blue (1 min)
5	Allergies	Redness, itching	4 minutes	2-3 times per day	orange (4 min)
6	Respiratory deficiencies	Cold, cold, cough, sore throat, sinusitis	6-8 minutes	2-3 times per day	blue (6 min) green (3 min) red (1 min)
7	Seasonal affective disorder	Bad mood, increased sleep, severe fatigue, increased appetite, weight gain, unhappiness	15-20 minutes	1 time per day, morning	orange (5 min) purple (1 min) violet (4 min) yellow (4 min)
8	Cardiovascular disease	Hypertension, angina pectoris, arrhythmia, heart failure	6-10 minutes	2-3 times per day	blue (6 min) yellow (6 min) green (6 min)
9	Dermatological	Acne, psoriasis, eczema, dermatitis, erythematous lupus	4-10 minutes	2 times per day	yellow (4 min) blue (4 min) orange (4 min)
10	Overweight	Cellulite, diabetes, osteoporosis, tired legs	6-10 minutes	2 times per day	green (6 min) yellow (6 min) blue (6 min) orange (4 min)
11	Digestive problems	Constipation, gastritis, gastric ulcer	6 minutes	2 times per day	yellow (6 min) violet (2 min) green (4 min)
12	Back Pain	Lombosciatics, lumbar spondylosis / cervical	6-8 minutes	2 times per day	purple (6 min) orange (1 min) blue (6 min)
13	Traumatisms		4-6 minutes	2 times per day	orange (5 min) purple (1 min) blue (4 min) yellow (6 min)

Table 5. Percentage of each color in relation to the number of diseases under discussion

No.	Color	Percentage (%)
1	Red	15.38
2	Orange	53.84
3	Yellow	61.53
4	Green	38.46
5	Blue	61.53
6	Indigo	23.07
7	Violet	23.07

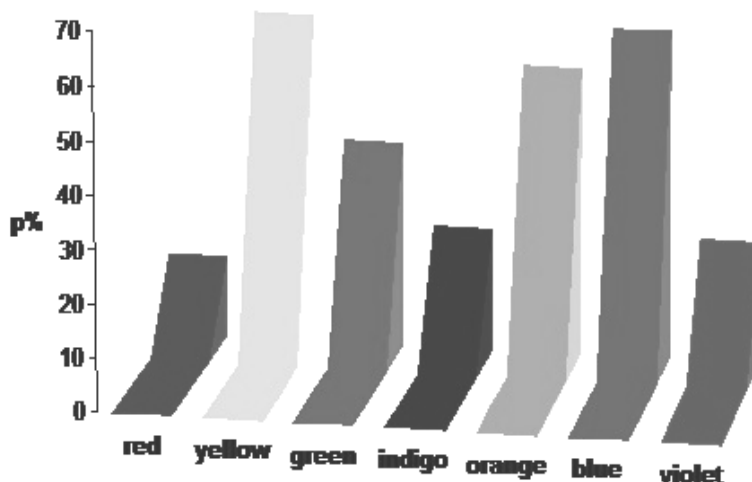


Fig. 8. Percentage of each color in relation to the number of diseases

As shown in Table 5 and Fig. 8 the largest share of the use of color in the treatment of many diseases is yellow and blue. The color blue is a good antiseptic and anti-inflammatory commonly used in wounds healing and not only, it can be used in combination with other colors. It is equally used in normal and correct

functioning of human body and is yellow which may be also associated with other colors in treating various diseases.

In Fig. 9 it is found the large numbers of people suffering from rheumatic diseases, mainly cardiovascular disease and overweight among people aged 51-60 years.

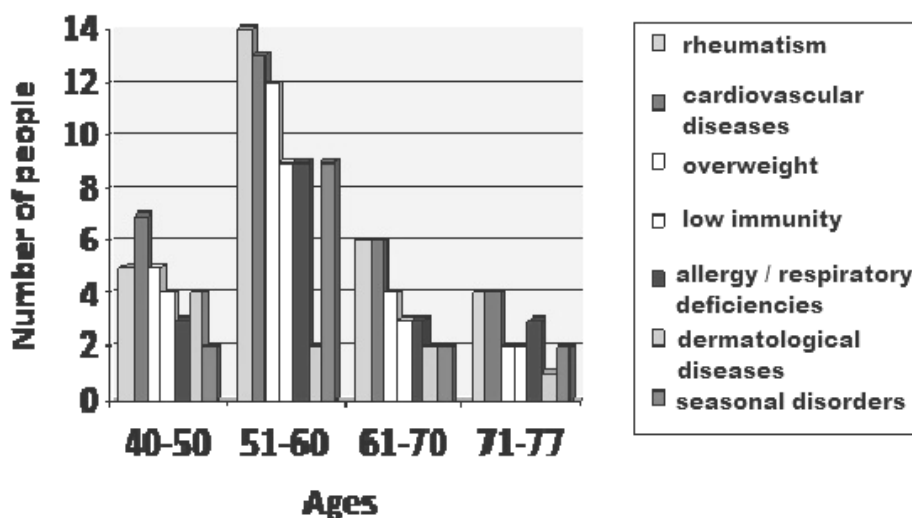


Fig. 9. Incidence of diseases according to age groups

CONCLUSIONS

Light is essential to maintain health and prevent disease and Bioptron light activates cell growth, it strengthens the immune system, it stimulates all regeneration processes of the body. Color Therapy is a method in the treatment of different diseases, being as a to use colors through the bioptron polarized light to enhance, to restore the energy of our body and to protect our health.

AKNOWLEGMENT

This work was supported by the strategic grant POSDRU/159/1.5/S/137750, Project "Doctoral and Postdoctoral programs support for increased competitiveness in Exact Sciences research" cofinanced by the European Social Found within the Sectorial Operational Program Human Resources Development 2007 – 2013.

BIBLIOGRAPHY

1. Coclivo. Coloured light therapy: overview of its history, theory, recent developments and clinical applications combined with acupuncture. *Am J Acupunct.* 1999, 27:71–83.
2. Azeemi, Khawaja Shamsuddin. *Colour Therapy.* Karachi: Al-Kitab Publications; 1999.
3. Muresan P. *Culoarea in viata noastra*, Ed. Ceres, Bucuresti, 1998.
4. Traian D. Stanciulescu. *Terapia prin lumina. Fundamente biofotonice ale medicine complementare*, Ed. Cristal- Concept, Iasi, 2004.
5. Graham H. *Discover Colour therapy.* (2004) Ca USA: Ulysses Press; 1998.
6. www.bioptron.com
7. Medenica L., Lens M. The use of polarized polychromatic non-coherent light alone as a therapy for venous leg ulceration, *Journal of Wound Care*, 2003,12(3):37-40.
8. Monstrey S., Hoeksema H., Saelens H., Depuydt K., Hamdi M., Van Landuyt K., Blondeel P. A conservative approach for deep dermal burn wounds using polarized-light therapy, *British Journal of Plastic Surgery*, 2002, 55:420-426.
9. S. Monstrey, H. Hoeksema, K. Depuydt, G. Van Maele, K. Van Landuyt, P. Blondeel, The effect of polarized light on wound healing, *European Journal of Plastic Surgery*, 2002, 24(8):377-382.
10. W. Vanscheidt, The effect of polarized light on wound healing, *European Journal of Plastic Surgery*, 2002, 24(8):383.
11. P. Iordanou, G. Baltopoulos, M. Giannakopoulou, P. Bellou, E. Ktenas, Effect of polarized light in the healing process of pressure ulcers, *Int. J. Nurs Pract.* 2002, 8(1):49-55.
12. T. Kubasova, M. Horvath, K. Kocsis, M. Feny, Effect of visible light on some cellular and immune parameters, *Immunology and Cell Biology*, 1995, 73:239-244.
13. P. Bolton, M. Dyson, S. Young, The effect of polarized light on the release of growth factors from the U-937 macrophage-like cell line, *Laser Therapy*, 1992, 33-37.
14. T. Samina, Yousuf Azeemi, S. Mohsin Raza, A critical analysis of chromotherapy and its scientific evolution, *Evidence-Based Complementary Alternative Medicine*, 2005, 2(4):481-488; US National Library of Medicine National Institutes of Health.
15. D. Ghadiali, *Spectrochrome Metery Encyclopedia.* NJ, USA: Dinshah Health Society; 1997.

Prezentat la redacție la 17 aprilie 2015