

Application of the Therapy Method with Left-rotating Circularly Polarized Light in the Medical Practice

*J. Stoyanov, I. Tanev**

Department of Anatomy, Medical Faculty, Thracian University, Stara Zagora

**Department of Physics and Biophysics, Medical Faculty,
Thracian University, Stara Zagora*

There have been no data for the application of left-rotating circularly polarized light as a therapeutical method in the medical literature until nowadays. We have designed a device that uses the method of Frennel for obtaining circularly polarized light and have tested it through implementing it clinically. We found that the therapeutic method with left-rotating circular polarized light can be applied widely and successfully in the medical practice for the treatment of diseases of the locomotory apparatus, the respiratory, digestive and cardiovascular systems as well as for disorders of psycho-emotional nature. The method is an excellent mode for the treatment of stress. It includes local application of left-rotating circularly polarized light and projecting regular geometric figures on the palm skin or back side of the hand with a certain color. These figures have a differing harmonious impact on the human organism.

Key words: left-rotating circularly polarized light, light therapy, bio-information.

Introduction

The shaft of light contains a huge number of elementary rays and in any of them the vector of the electric field oscillates in its own plane. If the particular plane of oscillation is different, we obtain ordinary and unpolarized light. If the rays are situated in near vicinity, we obtain partly polarized light, and if they coincide completely in the same plane only there is linearly-polarized light. There is another type of polarization when this vector rotates in a definite direction around the axis of light distribution with a frequency that is equal to the frequency of the light wave. If during this rotation the vector of the electric field does not change its magnitude, there is circularly polarized light. If the vector changes its magnitude, there is elliptic polarized light. Depending on the rotating direction of this vector, we can differentiate left and right rotating polarized light.

The light, especially plane-polarized, has medicinal effect on skin diseases, wounds, etc. [3]. In medicine the visible and ultraviolet rays are used for photo-therapy and photo-dynamic therapy to initiate reactions of synthesis and polymerization [1]. The infrared rays have a calorific affect on the tissues. They penetrate

only a few centimeters into the tissues and heat them up and this way set into motion the system for thermoregulation [2].

The plane-polarized light is used for the examination of optical active substances, in polarizing microscopes, in television sets with a flat screen for localizing the lines of internal pressure, etc. [5].

Materials and Methods

Most of the light sources (lamps, the flame and the sun) radiate unpolarized light. Plane-polarized light is obtained in: a/ reflection and refraction of ordinary light on the borderline between two transparent dielectrics - for example air/water. The level of polarization of the reflected light depends on the angle of incidence and at the angle of Bruster it becomes 100%; b/ refraction of ordinary light from special, double- refracting crystals (calcite, tourmaline and gerapatit). At the moment of refraction, the falling ray is divided into two plane-polarized rays. These are the crystals used for polarizers (the Nikol's prism, polaroids) — the optical elements for obtaining plane-polarized light through double refraction. A classical way for obtaining circularly polarized light is via the so-called "polar meter of Stocks" that consists of a light filter, a polarizer and a quarter- wave lamella, all of them consecutively positioned [6]. The light filter must be interferential to obtain a very narrow passage range. The quarter-wave lamella has the thickness equal to one fourth of the nanometer (nm) and is made of mica. The disadvantage of this device is that for any wave length (for any used filter) an appropriate quarter-wave lamella that is very hard must be used, so we use an achromatic quarter-wave compensator designed for the first time by F r e n n e l [6].

Operating mechanism

The method of electromagnetic-resonance impact of the circularly polarized light on the human organism uses visible rays with a wavelength from 380 nm to 760 nm. It is known that the skin is a big receptor field and the human organism is built up of proteins. It is also known that protein molecules have a spiral form. The ray of circularly polarized light spreads in the form of a spiral. All the types of proteins, without any exception, are optically active as they rotate the plane of polarized light to the left at definite angle [4]. This is a universal property and therefore we choose the use of left-rotating circularly polarized light as a therapy method. On affecting a definite skin region with the above-described radiation, the protein structures acquire an electromagnetic resonance. Membrane proteins, free nerve endings, potential dependent Na^+ , K^+ , Ca^{++} canals that are built of proteins and can absorb a few alternative conformations react. These limited conformational changes in the proteins lead to alterations in their functional activity. A specific action potential is created that corresponds to the wavelength. It reaches the central nervous system (CNS) along the afferents where it provokes a reaction in some of its structures: the motor neurons, sustantia lateralis intemedia, the reticular formation and the limbic system. Effectors responses are developed and along the efferents they reach the skeletal, the smooth and the cardiac muscular tissues, the internal organs, the glands and blood vessels. Thus information is passed to the CNS as we create a differing harmony corresponding to the various systems. This can be achieved when we project the electro-

magnetic resonance radiation with a definite wavelength on a certain skin region in combination with regular geometric figures. The period of time of exposure is from 10 to 12 minutes which is enough for the healthy harmonic effects to develop.

Results

Observed healthy effects

1. Impact on the physical activity-positive effect on the skeletal muscles- increase or decrease in the muscular tone, depression and elimination of myalgia, contraction, or muscle fatigue.
2. Impact on the smooth muscular tissue: spasmolytic or tonic effect;
3. Stabilizing of cardiac activity
4. Effective results in: astheno-vegetative conditions, state of agitation, insomnia, seasonal disorders, depression, and emotional breakdowns.
5. Analgetic effect
6. Anti-inflammatory effect in processes of non-infectious nature (for example: of traumatic origin). Resolution of oedemas.

Results from successfully accomplished treatment

Arthrosis of lumbar vertebrae accompanied with monolateral or bilateral radiculitis - 12 cases; Discal hernia (L4, L5) - 10 cases; Arthrosis of cervical vertebrae accompanied with radiculitis - 10 cases; Osteophytes - 8 cases; Coxarthrosis - 12 cases; Gonarthrosis - 8 cases; Periarthritis - 6 cases; Epycondylitis - 8 cases; Tendinitis - 13 cases; Plexitis - 9 cases; Inflammation of the paranasal sinuses (chronic suppurative inflamed) - 18 cases; Migraine - 8 cases; peptic ulcer disease - 8 cases; Chronic colitis - 5 cases; Chronic Cholecystitis - 8 cases; Hypertension - 14 cases; Astheno-vegetative conditions - 12 cases; Depression - 2 cases.

Using this method no undesirable side effects such as erythema, irritation, edema, or nociceptia are developed since the harmful impact of the infrared and ultraviolet rays is avoided. We evaluated the reports from the implemented treatment. Some of the patients were sent by colleagues at the Medical Faculty to the Thracian University. After the treatment the same professionals noted the results from the implemented treatment in examination reports of the patients.

Discussion

The advantage of the described method to other phototherapeutical methods is due to its impact mechanism. It does not rely on penetrating tolerance of the rays deeply in the tissues depending on the different wavelength. Most importantly, the frequency of vibrating of left-rotating circularly polarized light is transferred through the resonance to the protein structures that oscillate with their own vibration frequency and this is transferred in depth as well as along the nerves. Thus the colors combined with regular geometric figures have a harmonizing impact on the CNS, psycho- emotional conditions and then in a nerve- reflecting way to all organs in different systems of the human organism.

The human organism is a complex informational and energetic structure. Through bringing harmonic information in it, the desired results on an individual's state of health can be achieved.

Conclusion

The left-rotating circularly polarized light has a strong biological activity. It is a method that can be used to send information to the CNS and as the result we can change the psychoemotional and physical state of a person. The electromagnetic resonance radiation is an excellent vitalizing mode that can significantly increase the life expectancy at a reasonable application. The method can be used as an efficacious curative approach independently as well as in combination with pharmacotherapy of modern medicine.

References

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