GENERAL INFORMATION

TREATMENT WITH OEDCM TECHNIQUES

OEDCM Concept

Since a few years ago we have a variety of treatment techniques that allows the intervention in different therapeutic targets in a selective way with a transcutaneous, transmucous or intracavitary approach.

These treatments are based on the use of Electromagnetic Dielectric Capacitive Monopolar Waves (OEDCM). This type of techniques allows to transmit any type of electromagnetic signal through biological tissues to the site of action in a very selective and efficient way.

The main base that brings together this type of techniques is a new model of signal transmission through tissues, dielectric transmission, based on dielectric characterization of biological tissues. Nowadays, all biological tissues have perfectly defined dielectric parameters, taking into account that this new model for signal transmission through biological tissues has been developed. The new transmission model allows to apply energy in-depth in a selective way, comprising the transmission of different signals at the same time, thereby extending therapeutic action. Gabriel's researchs about Dielectric energy transmission in biological tissues have enabled to develop a new model of signal transmission through tissues.

References:

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What are OEDCM?

Electromagnetic Dielectric Capacitive Monopolar Waves (OEDCM) are signals between 100HZ and 930Khz, emitted in a pulsed and modulated way in ever-changing frequency ranges in order to avoid the accomodation of receptors. Pulse and modulation are controlled in a digital way, in order to increase the precision of the emitted signal.
Safe. Non-ionizing nor cumulative radiations.
References:

- EN, 50413:2008, Basic standard on measurement and calculation procedures for human exposure to electric, magnetic and electromagnetic fields (0 Hz–300 GHz).
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How are these techniques applied?

The approach is made in a transcutaneous, transmucous or intracavitary way, and application is monopolar. What does this mean?
Application is made in a Monopolar way in order to avoid energy transits through tissues that are not the target ones. There is no return physical element, *the person receives energy and behaves as discharge energy element to ground plane.*
Each superficial discharge line carries an energy that is considered worthless; the effective discharge is the result of the sum of the envelope formed by all lines.
It enables to do applications fully focused on the treatment area.
Bipolar application; emitter and receiver arranged at a certain distance. *Straight conduction lines with high density of energy that pass through organs and tissues which we do not want to treat. UNDESIRED EFFECTS!!*

This system represents a great progress in relation to Resistive application through electrical conduction, which enables to do focused in-depth energy deposits without disrupting overlying tissues.

Advantages of monopolar vs. bipolar transmission

. Elimination of the return electrode.
. We avoid unnecessary transits of high frequency currents through organs and tissues that are not intended to treat.
. It allows treatment despite of the presence of osteosynthesis material.

Integrated action of different action mechanisms

As we have mentioned before, the therapy through Electromagnetic Dielectric Capacitive Monopolar Waves (OEDCM) consists of the transcutaneous application of electromagnetic signals from the low to medium-high frequencies spectrum and in every-changing frequency ranges in order to avoid the accomodation of tissue receptors, thereby allowing the induction of physiological effects through different action mechanisms.