BIOLOGICAL RESPONDENTS TO THE THERAPEUTICAL ELECTROMAGNETIC FIELDS STIMULI Lyubina Vesselinova, MD, PhD

Military Medical Academy Sofia, Bulgaria

ABSTRACT

In medical practice electromagnetic fields (EMF) are prescribed as the universal prescription of pharmaceuticals – with strict status assessment and dosing. Only obeying this way we can rely on its predicative healing stimulating effect. Some important determinant biological answers and physical modalities of the EMF are presented. As a rule, the weak signals are stimulative and are accepted as syntonic xenobiotics from the body. One of the first tissues of response is the circulatory system which takes to local trophic changes. In the biological EMF interaction, the tissue hydration/hyper hydration, entirety and mass cells' thickness are standing for, too. The intracellular mechanisms as the membrane permeability and calcium-calmodulin system activating with a cascade beneficial health effects are presented, too.

This aims to underline the complexity and complicacy of the biological response dependent on changes in the EMF modalities or in the health status.