New Technique to Study the Effect of Fifth Generation (5G) Radiation Antenna on Human Body

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Abstract:
With the invention of the 5G network, the world has witnessed response to change in communication networks and is working on an unprecedented scale. This raises the question of whether high frequencies and constant exposure to nonparticulate radiation (EMF) radiation have a negative impact on human health. Some scientists believe that these waves don't cause effects on the physical body. In this paper, simulation was done by using MATLAB R2019a. To do this simulation the tissues were divided into 5 groups according to the type of tissues which are nerve, connective, epithelial and muscle tissues. The specific absorption rate (SAR) and power density (PD) in different frequencies (20, 30, 40, 60,70,S0,100 GHZ) for more than 40 tissues are calculated. The comparison is done with other researches which have used the same techniques but most of these papers used the effect of the above frequencies on two or three tissues. In this paper, about 40 types of tissue are used for the simulation, and the simulation results show that the nerve tissues are the most affected tissue.

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