PHOTODYNAMIC THERAPY IN MEDICINE

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Abstract -
Photodynamictherapy (PDT) isbased on the induction of a photochemical reaction between a non-toxic photosensitizer, light and oxygen. It is a modern methodthatuseslight to heal. In thistechnique, aftersystemicadministration of a photosensitizing agent (PS), localnecrosis of neoplasticcells, inflammatory lesionsor cells of microorganismssuch as bacteria, viruses and fungiisinducedusinglight of a specific wavelength. The use of PDT allows to limit the number of surgical procedures and often successfully complete the treatment process.
Unlikechemotherapy and radiotherapy, PDT uses a combination of light and photosensitizer, whichtogetherdetermine the end result. There is also an adverse effect on resistance to therapy, depending on the form of the PS concentration and the form of the constantlightdose. The mechanisms of resistance to PDT attributed to PS may be correlated with the overall mechanisms of drug resistance. They are associated with altered drug uptake and release rate or altered intracellular exchange. In the second stage, increased decay or inhibition of the activity of oxygen-reactive species is also associated with resistance to PDT through enzymes that detoxify antioxidants and activation of heat shock proteins.

Keywords - Photodynamictherapy, Photosensitizer, Chemotherapy, Necrosis

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[3] Anoikis as anally of humanimmunity in cancer and its enemy in neurodegenerativediseases **p-ISBN:** 978-83-7996-817-6 In: History of biochemistry