CATIONIC PROTOPORPHYRINS DERIVATIVES. CELLULAR DEATH AND EFFECTS ON HELA CELLS TREATED BY DYE-LIPOSOMES DRUGS AND LASER IRRADIATION.

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Photodynamic Therapy uses light irradiation on a tissue with cell internalization of a dye photosensitizer. Protoporphyrins are widely used in this kind of treatments of cancer and there is a critical problem including internalization and self-aggregation. Also, there is an especial question related to cyto-localization. Positively charged dyes are cell drive to mitochondria and contributes to apoptosis cellular death. In this study we were able to available liposome-dye interaction and dye internalization enhanced by liposome as well the cellular death induced by laser irradiation. Liposome-dye interactions were avalaible by absorption spectra and showed a good correlation between charges on the protoprophyrins and liposome. HeLa cells incubated 3 hours with protoporphyrins-liposome were deathed in larger extension that ones incubated only with an aqueous solution and without drug cell control. The extension of this cell death indicates an important role of liposome on the internalization.

Key words: *liposome interactions, cellular internalization, Photodynamic Therapy.*

Knowledge: FAPESP, CAPES.