NEW CATIONIC PORPHYRIN DERIVATIVES: SYNTHESIS AND BIOLOGICAL EVALUATION AS PHOTOSENSITISERS FOR PDT

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Photodynamic therapy (PDT) is nowadays widely accepted as a therapy for certain cancer and other non-neoplastic diseases. In order to selectively destroy the target tissue, adequate light, oxygen and a photosensitiser are combined together. Since the approval of Photofrin\textsuperscript{®} as a PDT photosensitiser many efforts have been made to find new and improved compounds [1]. Among them, cationic porphyrins have been considered to be good candidates for PDT and also for microorganism photoinactivation. Their good selectivity to cancer cells and ability to intercalate and efficiently cleave DNA upon illumination make them suitable for both types of applications [2]. Herein we report the synthesis of monomeric and dimeric cationic porphyrin derivatives of 5-(4-carboxyphenyl)-10,15,20-tris(pyridyl)porphyrin and their preliminary biological studies as PDT photosensitisers.

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