

THE INCREASE IN THE PHOTODYNAMIC POTENTIAL OF DACARBAZINE AS A RESULT OF PH DEPENDENCE

**Ana-Maria COMAN^{5, 2}, Radu FUMĂREL¹, Valentin BUDAȘCU³,
Diana Mihaela ALEXANDRU³**

e-mail (first author): coman.ana_maria@yahoo.com

Abstract

Photostimulated chemotherapy (PSChT) is a relatively new therapeutic method whose principle is based on increasing the therapeutic index of certain cytostatics as a result of their interaction with optical radiation. For a particular chemotherapeutic agent to be effective in PSChT-type applications, it must fulfill several conditions, the most important of which is to have a positive photodynamic potential that consists in the resonant transfer of energy between the irradiation source and its molecule. In this study, Dacarbazine (DTIC) was used as the photosensitizing agent, and a high-pressure mercury lamp was used as the irradiating agent. Preclinical studies in BL / 6 inbred mice carrying B16 murine melanoma and spectrophotometric determinations were performed to identify whether the DTIC-PSChT method enhances the efficacy of chemotherapy.

Key words: photostimulated chemotherapy (PSChT), dacarbazine, murine B16 melanoma, tautomerization
