

The invention relates to medicine, in particular to treatment of oncological diseases by photodynamic therapy (PDT). A method involves insertion of photosensitizer into the area of tumorous tissue and its exposure to laser radiation simultaneously at two wave lengths, one of which is selected such as to cause oxyhemoglobin photodissociation, and the second is selected such as to cause a photochemical reaction of photosensitizer with oxygen. Prior to PDT run a temperature at the area of exposure on the tumorous tissue is increased to 42-43 °C and is maintained over the entire period of irradiation.