Photodynamic therapy (PDT) of malignant tumors by photosensitizer photosens: results of 45 clinical cases

Sokolov, Victor V.; Chissov, Valery I.; Yakubovskya, R. I.; Aristarkhova, E. I.; Filonenko, E. V.; Belous, T. A.; Vorozhtsov, Georgij N.; Zharkova, Natalja N.; Smirnov, V. V.; Zhitkova, M. B.
Proc. SPIE Vol. 2625, p. 281-287, Photochemotherapy: Photodynamic Therapy and Other Modalities, Benjamin Ehrenberg; Giulio Jori; Johan Moan; Eds.

Photosensitizer Photosens is a mixture of sulphonated Al-phthalocyanines with a different number of substituents per phthalocyanine molecule. In the beginning of 1994, this photosensitizer was approved for clinical trials. Since that time till May 1995, 45 patients with 120 tumors were treated by PDT-Photosens. The main tumor localizations were lung (5/6), head and neck (4/4), esophagus (8/8), stomach (2/2), vulva (2/2), bladder (1/1), breast cancer (3/3), skin (basalioma, melanoma, sarcoma Kaposi, mts breast cancer) (20 patients/94 tumors). The lesions were photoirradiated 48-72 h after intravenous injection of Photosens in doses from 0.5 to 2.0 mg/kg b.w. (1.0 mg/kg b.w., on average). PDT was performed by laser power density from 20 to 1400 mW/sq cm (300 mW/sq.cm, on average), energy density varying from 15 to 200 J/sq cm (100 J/sq.cm, on average). The therapeutical effect of PDT was evaluated histologically, endoscopically, roentgenologically and sonographically 3 - 4 weeks after the treatment. Complete regression of tumors was reached in 56%, significant remission was reached in 34%, and partial remission was observed in 10% of cases. The follow-up of patients with complete tumor regression was to 15 months.