



MEDICAL ACADEMY OF WROCLAW

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DEPARTMENT OF THORACIC SURGERY
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"Ukrain-as anti-cancer drug
Preliminary information

Thiophosphoric acid alkaloid derivatives from *Chelidonium majus* L /called Ukrain preparate/ was clinically used in 28 patients with different carcinomas. The drug was administered according to producer instruction.

Our preliminary results indicated its therapeutic action in the majority of treated patients. The treatment was generally well tolerated. After one course of Ukrain administration the significant increase in the proportion of total T-cells and T-helper cells was observed. The normalization of the helper/suppressor cells ratio and activation of NK-cells was also found. Restoration of cellular immunity was accompanied by improvement of the clinical state of patients. This effect occurred especially in patients in early stages of clinical advancement/I and II/.

Objective tumor regression/CP + PR/ was seen in 50% of patients and during 18 months of observation no progress of malignant process was noted. The better tolerance and effects of radio- and chemotherapy was also shown.

Recently performed studies indicated that independently of immunostimulating effect of Ukrain some direct influence of drug on cancer cells should also be considered. Our preliminary in vitro experiments showed that pre-incubation of Ukrain with target tumor cells damaged them in a dose dependent manner.

Present results indicate that Ukrain is a plant immunostimulator of cellular immunity with some direct impact on cancer cells.

Efficiency of Ukrain treatment is dependent on the stage of clinical advancement of malignant process.

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