

# EFFECT OF THERAPY BY POLARIZED LIGHT ON THE IMMUNE STATUS OF TUMOROUS DOGS AND THE MORPHOLOGY OF THE TUMOROUS TISSUE

FINAL REPORT, 1994

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## SUMMARY

The effect of polarized light on the immune responses developing in animals was investigated on the healthy and control groups of dogs and a group suffering from spontaneous tumor, all three treated for three weeks with polarized light.

The animals were treated according to a new method developed by the authors. The blood exsanguinated from the dogs was conducted into a special cuvette, treated with polarized light and then reinjected into the animals (Fig. 11-12).

The objective of various immunological investigations was to show if treatment with polarized light activates the immune system of the laboratory animals.

No harmful effects of the treatment were found in the healthy and control groups and the group suffering from spontaneous tumor. In comparison with the blood sample taken before the treatment from the control group the T-lymphocyte cell population playing an important role in the cellular immune processes showed a 15-20% higher activity. Apart from this, the number of lymphocytes in the blood smear of dogs increased, though it remained within the physiological boundaries.

Tumorous tissue samples were taken before treatment from the group of tumorous dogs, and the types of tumor were determined. Four of the ten dogs in this group were found to have malignant, four - semimalignant and three - benign tumors. One of the animals had two types of tumors.

To summarize the results, immunological and morphological investigations showed the *activation of immune responses* in animals which had malignant tumor, manifesting in the increase of number and higher activity of lymphocytes, the resultant intensification of cellular infiltration in the tumor and larger scale of regressive processes in the tumor cells.

In animals which had benignant tumor no significant change in the immune status could be observed.

A remarkable result of the treatment was the unequivocal improvement of vitality of all control and tumorous animals revealed by clinical investigations.

We can draw the conclusion on the basis of our investigations that treatment of blood by polarized light may increase the immune activity of dogs. This increase is more marked in the case of animals with malignant and semimalignant tumors.

Due to the harmless nature of the therapy, improved vitality of the animals and the activation of the immune system this method is proposed as an adjuvant therapy in the treatment of tumorous dogs.

Fig. 5: Change of the lymphocyte number in tumorous dogs treated with polarized light

