

(Reprinted from *Nature*, Vol. 193, No. 4822, p. 1304 only,
March 31, 1962)

Alkoxyglycerols in Irradiation Treatment

It has previously been shown that the alkoxyglycerol esters to a certain extent prevent leuco- and thrombo-cytopenia¹. During 1955-56 about 300 patients, suffering from cancer of the uterine cervix, were given alkoxyglycerol esters for the whole period of treatment with radium and X-rays. The white cell and the thrombocyte counts were higher for the 'prophylactic group', that is, patients treated with alkoxyglycerol esters, than for the controls, that is, the group treated with irradiation only, both during the treatment and after its termination.

Further experiments² on irradiated rats have shown that the alkoxyglycerols and their esters prohibit to some extent the decrease both of megakaryocytes and of nucleated cells in the bone marrow. The alkoxyglycerols thus seem to act as a protective agent of the bone marrow.

Finally³, it was found that the alkoxyglycerols promote the growth of rats and that they act as growth-stimulating substances for *Lactobacilli*.

For the major group of patients suffering from cancer of the uterine cervix, to which alkoxyglycerols were administered during the radiation therapy, 5-6 years have now elapsed. Thus it is possible to make a comparison between the times of survival for the group treated with alkoxyglycerols and for the group treated with radiation only.

Table 1 gives numbers of 1- and 5-year survivals. The patients are grouped in stages I-IV, the most severe one being IV. The time of survival for the

Table 1. PATIENTS SUFFERING FROM CANCER OF THE UTERINE CERVIX TREATED IN 1955 AND 1956 (ALKOXYGLYCEROL ESTERS ADMINISTERED TO 'PROPHYLACTIC GROUP')

		Total patients	1-yr. survivals		5-yr. survivals	
			No.	Per cent	No.	Per cent
Stage I	Prophylactic group	66	64	97.0	59	89.4
	Control group	120	118	98.3	100	83.3
Stage IIA	Prophylactic group	88	83	94.3	66	75.0
	Control group	132	123	93.2	79	59.8
Stage IIB	Prophylactic group	85	72	84.7	49	57.6
	Control group	135	111	82.2	56	41.5
Stages IIA and IIB	Prophylactic group	173	155	89.6	115	66.5
	Control group	267	234	87.6	135	50.6
Stage III	Prophylactic group	37	27	73.0	9	24.3
	Control group	106	67	63.2	26	24.5
Stage IV	Prophylactic group	8	4	(50.0)	2	(25.0)
	Control group	32	11	34.4	4	12.5

control group agrees with the results quoted in literature¹. Table 1 shows that particularly for stage II the time of survival is markedly longer for the treated group than for the controls.

ASTRID BROHULT

Karolinska Sjukhuset,
Radiumhemmet,
Stockholm 60.

¹ Brohult, A., *Proc. Fifth Intern. Conf. Radiobiology, Stockholm, August 1956*, 241 (1957).

² Brohult, A., *Nature*, **181**, 1484 (1958).

³ Brohult, A., *Nature*, **188**, 591 (1960).

⁴ *Ann. Rep. Results of Treatment of Carcinoma of the Uterus*, **12** (Stockholm, 1961).