war work in some other part of the country and who wish to return to their original jobs and homes should be considered as drafted men and women returning from service to their country. Every effort should be exerted to make their former jobs available to them. They should be furnished with severance pay sufficient to get them back to their homes and over the initial hard times. This is just as much a national responsibility as that recognized in giving "mustering-out pay" to members of the armed forces.

SPECIAL ARTICLES

CHEMOTHERAPY OF FILARIASIS IN THE COTTON RAT BY ADMINISTRATION OF NEOSTAM

FLORIDA cotton rats are frequently infected with a filarial worm, *Litmosoides carinii*. The adult parasites dwell in the pleural space and microfilariae occur constantly in the peripheral blood of the rats. Since infected animals can be readily procured and since the infection bears some similarity to certain of the human filarial diseases, the cotton rat filariasis appears to supply a much-needed means of testing drugs for potential activity in the treatment or prophylaxis of human filariasis.

Several drugs have been tested in this laboratory for therapeutic action in the cotton rat infection. Among these, neostam (stibamine glucoside, Burroughs Wellcome and Co.) has given particularly favorable results. The adult filarial worms have been killed after a few doses of this drug and gradually thereafter microfilariae have disappeared from the peripheral blood of treated animals.

In Table 1 are given data on ten treated and two control untreated cotton rats. Four doses of neostam, each of from 40 to 60 mgm, were administered intramuscularly to the animals every week until autopsy and microfilaria counts on the tail blood were made almost every day. The animals were autopsied after the intervals indicated in the table and searched for adult worms. In the treated rats presented in the table, in which the microfilaria count finally reached zero, every adult worm was dead when recovered at autopsy. Usually the adult worms from the treated rats were found massed together, often completely enveloped by inflammatory exudate. In other treated rats, besides those shown in the table, which were autopsied before all microfilariae disappeared from the peripheral blood, the adult worms were likewise dead and enveloped by exudate, in some animals after as brief a time as eleven days from the beginning of treatment. It appears from these data that the repeated injection of neostam has resulted in the cure of filariasis in the cotton rat and, since the drug is well tolerated by man in comparatively large doses,[1] its trial in human cases of filariasis seems to be indicated.

TABLE 1

EFFECT OF NEOSTAM ON THE FILARIAL WORM LITOMOSOIDES CARINII IN COTTON RATS

Cotton rat No.	Microfilariae counted in 100 microscope fields × 430 on designated days											Adult worms recovered at autopsy†
	Before treatment	After treatment										
		1	7	14	21	28	35	42	49	56	64	
1	136	94	100	52	20	28	16	7	5	2	0*	40 to 50; dead; matted together.
2	44	0	4	3	5	5	1	3	1	0*		5 to 10; dead; enveloped by exudate.
3	50	28	32	22	24	28	4	1	3	1	0*	10; dead; matted together.
4	4	4	0	0	0	0	0*					1; dead.
5	12	10	0	0	0	0	0*					10; dead; enveloped by exudate.
6	92	62	92	70	38	7	6	6	0	3	0*	50; dead; some matted together.
7	180	152	230	84	16	64	8	3	2	1	0*	50; dead; matted together.
8	92	72	16	4	0	0	0*					25; dead; enveloped by exudate.
9	124	44	56	0	0	0*						20; dead; enveloped by exudate.
10	108	96	116	62	26	5	0*					40; dead; some matted together.
11 (Control)	16	18	36	12	24	20	10	38	48	42	52*	8; living; freely moving.
12 (Control)	252	232	232	176	110	192	90	176	136	186	198*	50; living; freely moving.

* Day of autopsy.
† When worms are matted together, numbers are approximated.
Schedule of treatment: Rats 1 through 7: 40 mgm; Rats 8 through 10; 60 mgm } 4 times weekly until autopsy.
Rats 11 and 12: Untreated controls.

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THE ROLE OF CALCIUM IN CARCINOGENESIS

IN a comprehensive review on the role of the fixed bases in cancer, Shear[1] pointed out that "much con-

[1] L. E. Napier, *Indian Jour. Med. Res.*, 16: 911, 1929.
[1] M. J. Shear, *Am. Jour. Cancer*, 18: 924, 1933.