The values of some other amino-acids may require correction when a more purified preparation of the antispermato-genic fraction is obtained.

As seen in Table 1, analyses of hydrolysed guinea pig testicular and spermatozoal antigens reveal a close similarity in amino-acid content. Injection of less than 5 mg of these antigens in adjuvant into a guinea pig induces aspermatogenesis lasting 6–8 months. The human testicular antigen bears a striking similarity to those from the guinea pig, but the same dose of material does not induce complete aspermatogenesis in the guinea pig. While these analyses support previously reported demonstrations of cross-reactivity between guinea pig and human testicular antigens⁵, the differences in biological activity may be attributed to species specificity.

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Changes in Activity of Transaminase in Dog's Serum due to Lymphoedema of the Liver

PREVIOUSLY¹ we examined the changes in activity of transaminase after acute biliary obstruction. This communication records observations regarding changes in serum glutamic-oxaloacetic transaminase (S-GOT) activity due to artificially produced lymphoedema of the liver.

The experiments were carried out on dogs of both sexes under 'Nembutal' anaesthesia (0.04 g/kg body-wt., intra-venously). After median laparotomy the portal lymphatic vessels and glands were ligated. Nothing else was done with the control animals except laparotomy. Activity of GOT was determined in the sera of all animals for 3

Table 1. LYMPHATIC BLOCKADE

No. of dogs	S-GOT activity									
	Before intervention			After intervention						
	Days			Days						
	1	2	3	1	2	3	4	5	6	7
1	55	45	—	62	148	150	155	155	—	—
2	114	—	—	84	71	223	114	74	55	—
3	114	—	—	150	185	223	174	74	55	—
4	96	85	96	130	155	155	148	—	—	90
5	84	80	70	96	148	122	—	—	84	—
6	21	—	—	106	110	122	45	21	21	18
7	45	84	62	104	148	102	45	21	21	21

$P < 1$ per cent

Table 2. SHAM-OPERATION

No. of dogs	S-GOT activity									
	Before sham-operation			After sham-operation						
	Days			Days						
	1	2	3	1	2	3	4	5	6	7
1	66	110	—	71	55	64	62	—	—	—
2	70	75	70	71	80	84	96	—	—	—
3	21	71	74	76	21	22	21	35	22	21
4	79	81	82	86	84	40	35	18	20	21

$P > 40$ per cent

days before and 7 days after intervention, according to Dubach's method².

The values found in both groups are summarized in Tables 1 and 2. Compared with sham-operation, a significant rise of S-GOT activity is found in dogs the lymphatics of which have been blocked.

In 1954 we published our observation on dilatation of lymphatic vessels in the periportal area and around branches of the vena hepatica produced by ligation of the portal lymphatics^{3,4}. These alterations are followed by extensive oedema around the v. sublobulares. As a consequence the liver cell columns become compressed. All these obviously affect their metabolism; the changes manifest themselves in the rise of S-GOT activity also. But, since the oedematous state due to disturbed lymph circulation is only temporary, the elevation of S-GOT activity is similarly transitional in these cases.

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Alteration in Size of the Heart of Late Chick Embryos after Incubation at Varied Temperatures

WE have observed a consistent alteration in the size of the heart of chick embryos following the exposure of 11- or 12-day-old embryos to increased or reduced temperatures of incubation for one week. In one series, ninety 11-day-old embryos, which had been maintained at the normal temperature of 37.5°C, were removed from their incubator, candled, and divided into three groups of 30 each. One group was placed in an incubator at 32.5°C, the second returned to 37.5°C, and the third placed at 42.5°C. On the eighteenth day of incubation live embryos were found as follows: 26 at 32.5°C, 29 at 37.5°C and 18 at 42.5°C. All the embryos at 42.5°C and 20 of the embryos from each of the other two groups were examined. The embryo was removed from its extra-embryonic attachments and weighed. The

Fig. 1. Tabulation from one experiment of the weights of chick embryos and their hearts on the eighteenth day of incubation, the final week of this period being at the three experimental temperatures

* The $\pm$ values = 1 S.D.