

having subsided for a few days. In one case, the application of the drug to the right wrist after the reaction on the left wrist had partly subsided caused, in addition to a direct reaction, a highly intensified recurrence of the original reaction of the left wrist.

For the intravenous administration, the benzothiazole was emulsified in saline or in an autogenous serum. Injection into cats caused a marked fall in blood pressure, with an increase in the pulse rate. The effect on the respiration varied, depending on the dosage. A small dose sometimes caused an increase in both the rate and the amplitude, while larger doses usually had the opposite effect.

Approximately 100 mg. per kilo. of body weight, administered in a single dose, intravenously, constitute the minimum lethal dose for a cat. If this total amount be given in several small injections, it is not always fatal; but if divided into 2 or 3 large doses, it is usually lethal. In every animal, the respiration ceased a few minutes before the heart stopped beating.

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Effect of Respiratory Depressants on the Respiratory Quotient of Excised Tissue.

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We have investigated the effect of various depressants of the oxygen consumption of excised kidney tissue of the rat in the Warburg apparatus.

Table I gives the oxygen consumption and the respiratory quotients, and Table II the calculated effect on carbohydrate and fat using the Zuntz-Schumburg-Lusk table.

With the depression of oxygen consumption there was an elevation of quotient in 9 out of 11 observations. Analysis of these data indicates that the oxidation of fat is interfered with more than that of carbohydrate. This is in contrast to the situation in diabetes where the primary injury is to the oxidation of carbohydrate.

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TABLE I.
Respiratory Quotients after Depression of Oxygen Consumption.

Depressant	cmm. O ₂ /dry mg./hr.		Respiratory Quotient	
	Without depressant	With depressant	Without depressant	With depressant
Ethyl urethane 3%	19.3	13.5	.814	.922
” ”	19.3	10.6	.904	.885
” ”	22.7	11.8	.863	.934
” ”	15.2	9.2	.812	.883
” ”	17.5	13.0	.760	.833
Thymol .012%	22.8	13.0	.878	.929
” .014%	19.8	11.7	.872	.919
” .012%	20.2	17.4	.894	.919
” .010%	25.0	17.9	.908	.888
After previous anaerobic exposure	19.7	11.3	.894	.932
”	19.2	7.5	801	.863

TABLE II.
Selective Action of Depressants on Oxidation of Fat and Carbohydrate.

Depressant	No. of experiments	Average depression of O ₂ cons.	Average effect on fat	Average effect on carbohydrate
Ethyl urethane 3%	5	% —38	% —57	% +7
Thymol .010 to .014%	4	—30	—52	—19
Anaerobiosis	2	—59	—68	—33

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Observations on the Pathogenesis of Pulmonary Suppuration in the Albino Rat.*

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The well recognized syndrome of pulmonary suppuration in the albino rat is, as in many human affections, an advanced stage of the condition. The earlier manifestations of the disease are imperfectly understood and the common appellation “pneumonia” for the well developed lesion is a reflection of this lack of knowledge of the fundamental nature of the process. The lesions of the lungs vary greatly according to the stage and extent of the process but the

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