there was no indication of an unusual occurrence of streptococcal infection in the study group. Furthermore, the difference in carrier rate as determined by the two methods in this experiment is compatible with Pike's observations[20,21] and with the results of the cultures of 125 well soldiers (Table V).

Summary. A technic for examining throat swabs which appears to have certain advantages is described. This method involves suspending the material on the swab in broth, inoculating blood agar plates with this suspension, and examining the resultant growth with the aid of a microscope. The experiments which led to the adoption of this technic are presented.

This and other similar technics for determining pharyngeal flora, however, have definite limitations, as indicated by the observation that inoculation of blood agar plates with a mixture of only two bacterial species yielded colonies which were not distributed at random on the surface of the medium, but rather in a manner indicating interdependence of the organisms. Thus, the growth on a plate does not necessarily reflect the relative proportion of each species present in the inoculum.

The value of selective media as a means of detecting organisms present in low frequency has been demonstrated by utilizing Pike's medium for the isolation of *beta*-hemolytic streptococci. The carrier rate for *beta*-hemolytic streptococci was increased from 9.6%, as determined by usual cultural methods, to 20.8% by the use of Pike's method. The increase was greatest for Group B streptococci and least for the typable strains of Group A.

16614 P

Production of Increased Ketonemia in a Normal Dog by Adrenocorticotropic Hormone.*

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Previous work[1] from this laboratory has shown that pure adrenocorticotropic hormone increased the ketonemia of fasted normal rats. The present experiments have been undertaken to establish whether adrenocorticotropic hormone would have a similar effect in a normal dog.

Methods. All the experiments were carried out on one female mongrel dog weighing approximately 15 kg. Two control experiments were done: one in which the dog was given 50 mg of serum albumin, the other in which the dog was given 50 mg of a crude alkaline anterior pituitary extract which had been heated to 100°C for 1 hour. The adrenocorticotropic hormone was prepared according to the previously published method,[2] and 3 experiments were done in which it was given at a dose of either 50 mg or 25 mg.

The dog was fasted 72 hours before each experiment and an interval of at least 2 weeks elapsed between experiments. An initial blood sample was taken and then the hormone or control foreign protein was administered by a single intraperitoneal injection. At 1½, 3, 4½ and 6 hours after the injection additional blood samples were taken. Total blood ketone bodies were determined by the method

* Aided by grants from the National Institute of Health, RG 409, and The Research Board, University of California.

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2 Li, C. H., Evans, H. M., and Simpson, M. E., *J. Biol. Chem.*, 1943, **149**, 413.

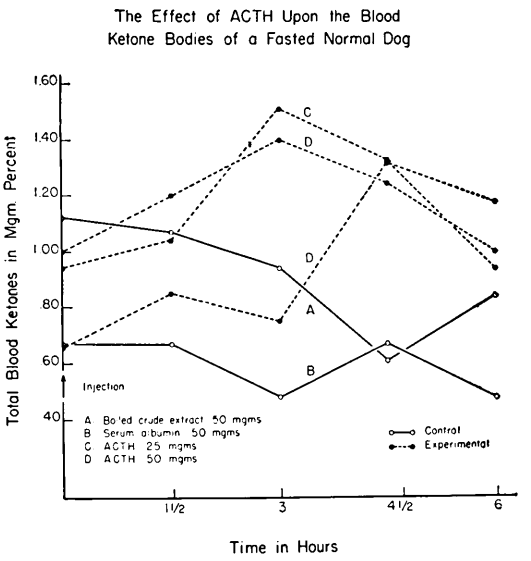

FIG. 1.

of Weichselbaum and Somogyi[3] on 2 ml samples of blood. Blood was taken by venipuncture and in most instances the determination was done in duplicate.

Results. The data from the experiments are presented graphically in Fig. 1. It will be seen that in each case in which adrenocorticotropic hormone was given there was an increase in ketonemia which reached its peak at either 3 or 4½ hours after injection and subsequently declined.

In neither of the control experiments was there a rise in the level of blood ketone bodies. Although the order of magnitude of the change was small it was a large percentage increase in view of the low initial levels. In view of the consistency of the response it was felt to be significant.

Conclusion. Adrenocorticotropic hormone produced an increased ketonemia in a fasted normal dog.

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16615

A Simple Method for Repeated Bone Marrow Aspirations in Rats.

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During the course of another investigation on the change in the hematopoietic tissues of the adult rat, it became necessary to develop a method for repeated bone marrow aspirations. Sawitsky[1] has perfected a technic for repeated bone marrow aspirations on the guinea pig which was a modification of the Sawitsky and Meyer[2] technic for bone marrow aspiration on cats. Vogel[3] has recently investigated the femoral bone marrow of adult rats, but was unable to obtain marrow without sacrifice of the animal; Cameron and Watson[4] modified Vogel's technic so that repeated aspirations could be made. However, Cameron and Watson's technique requires a surgical incision. This paper will report a modification of the Sawitsky and Meyer technic adapted to rats.

Method. Twenty-six adult rats, (the first generation of a cross breeding of highly inbred Slonaker (Wistar) and Curtis Dunning rats), weighing approximately 200 g were used.

The animals were anesthetized with sufficient nembutal to produce surgical anesthesia of 20-30 minutes duration. The animal was

* National Cancer Institute Post Doctorate Research Fellow.

† This work was supported in part by the United States Atomic Energy Commission.

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