shows time in minutes and the ordinate shows the number of bacteria per cc. of blood. The study of the action of eggwhite on the permeability of the intestinal wall is being continued.

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II. Influence of Eggwhite upon the Elimination of Bacteria into the Intestinal Tract.

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Raw eggwhite applied to the mucosa of the small intestine will influence the excretion of bacteria from the systemic circulation into the lumen of the small intestine. The preceding article dealt with the absorption of bacteria from the small intestine into the systemic circulation.

The dogs (25 animals) were fasted for 24 hours and operated upon under ether anesthesia. The abdomen was opened and different media were injected directly into the duodenum; normal salt solution used for 12 dogs, and fresh, raw eggwhite used, one eggwhite for each 13 dogs. The common bile duct was ligated and severed in order to exclude the passage of the bacteria into the duodenum by way of the bile. Ten cubic centimeters of a suspension of *B. prodigiosus* (one agar plate of *B. prodigiosus* suspended in 50 cc. of normal salt solution) were injected into the femoral vein and in 25 minutes the dogs were killed. Cultures were taken from the duodenum, upper and lower portions of the jejunum, ileum and caecum, with a sterile swab and smeared on agar plates. These were incubated at 37° for 24 hours. The results showed that *B. prodigiosus* passed through the wall of the intestine and appeared in greater numbers in the duodenum and upper portion of the jejunum, while a far less number was noted in the lower portion of the jejunum and practically none in the ileum and caecum.

The greatest number of bacteria appeared in the dogs in which eggwhite had been introduced into the duodenum, while a much less number appeared in the dogs injected with the saline suspension.

The accompanying chart shows the results of the experiments. The abscissa represents the segments of the intestinal tract and the ordinate the number of colonies grown on the agar plates inoculated

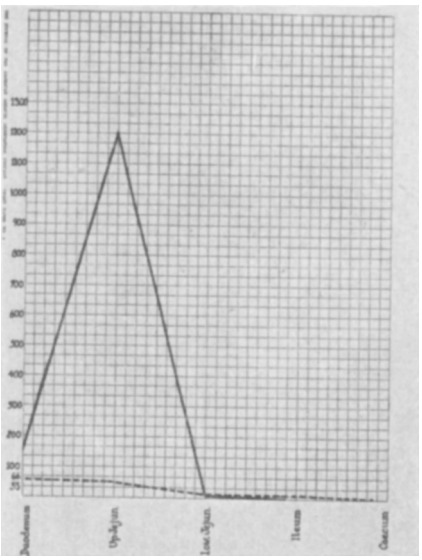

FIG. 1.

Ordinate = Number of viable bacteria. Abscissa = Segments of intestinal tract.
- - - - - - - = Saline suspension injected into duodenum.
——————— = Eggwhite suspension injected into duodenum.

with swabs. The solid line shows the results of the dogs which had been injected intraduodenally with eggwhite, and the dotted line of those injected intraduodenally with the saline.

The study of the action of eggwhite on the permeability of the intestinal wall is being continued.

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III. Influence of Eggwhite upon the Cyclic Circulation of Bacteria in the Splanchnic Area.

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Having shown in the 2 preceding articles that eggwhite increases the permeability of the intestinal wall for living bacteria from the intestinal tract into the circulation as well as from the blood stream into the intestinal tract, the question arose whether it is not possible that the bacteria might be absorbed and eliminated at the same time;