

TABLE II.  
Summary Showing the Effect of Sulfanilamide and Sulfapyridine on *Listerella*  
and *Erysipelothrix* Infections.

Organism	Treatment	No. of mice	Deaths
<i>Listerella monocytogenes</i>	Sulfanilamide	60	14
	Sulfapyridine	20	2
	Controls	80	77
<i>Erysipelothrix</i>	Sulfanilamide	40	40
	Sulfapyridine	70	69
	Controls	110	93

while 14 out of 60 treated with sulfanilamide died and only 2 out of 20 treated with sulfapyridine died. It can also be seen that most of the control animals succumbed within 3 days whereas the treated animals did not start to die until the third day. When mice were infected with *Erysipelothrix*, treatment with sulfanilamide or sulfapyridine had no beneficial effects, in fact, the treated animals died faster than the controls.

*Summary.* As is shown in Table II sulfanilamide and sulfapyridine have given good results in treating mice infected with fatal doses of *Listerella monocytogenes*.

The 2 chemotherapeutic agents tested show no helpful effects in the case of *Erysipelothrix* infections. If anything the agents helped to hasten the death of the animals.

From these data it would seem that the mechanism of infection, as influenced by sulfanilamide and sulfapyridine treatment, is different for the two diseases.

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### An Improved Method for the Study of Intestinal Function.

R. A. BUSSABARGER. (Introduced by O. S. Gibbs.)

*From the Department of Pharmacology, University of Tennessee Medical School,  
Memphis, Tenn.*

Thiry<sup>1</sup> described his classical method for the study of intestinal functions. Vella<sup>2</sup> improved this preparation by transforming a blind Thiry pouch into a tube with openings at both ends available for study. From that time many modifications of this basic prin-

<sup>1</sup> Thiry, L., *Sitzungsberichte d. Akad. Wien, Mathem.-naturw. Kl.I*, 1864, **50**, 77.

<sup>2</sup> Vella, L., *Moleschotts Untersuchungen zur Naturlehre*, 1882, **13**, 40.

ciple have been evolved. In each, however, the segment of gut lies within the peritoneal cavity so it is not possible for the experimenter to observe directly its movements. As such observations are highly desirable, a preparation has been made which differs from the classical in that the isolated segment of gut is taken out of the peritoneal cavity and placed directly under the skin. This allows not only more accurate control of balloon and bolus preparations, but also permits direct visual observations of the behavior of the gut, since movements are most easily seen through the thin overlying skin.

The operation is performed in the following manner. Through a midrectus incision a loop of intestine is selected whose mesenteric vessels are of sufficient length to allow the intestine to be brought freely to the exterior. A segment of 12 to 20 cm is isolated from this loop. The continuity of the remaining gut is restored by "end-to-end" anastomosis and the intestine returned to the peritoneal cavity. The rectus incision is now carefully closed by suturing the peritoneum and fascia around the mesenteric vessels of the remaining isolated segment which lies on the surface of the rectus. By blunt dissection sufficient skin is separated from the underlying fascia until the isolated gut can be housed in the space thus provided. This skin flap is then pulled over the gut and incisions made in it through which each end of the segment is drawn and sutured. Finally, the original skin incision is closed, thus completing the operation. These preparations are less difficult to make and retain in working order than the standard type of Thiry-Vella preparation. However, the same precautions necessary for the maintenance of the Thiry-Vella preparations must be used in these animals.

Using trained dogs we have successfully employed this type of preparation for both bolus and balloon studies with results not only quite equal to the standard type, but with the great advantage, associated with the direct observation of movements, passage of boli, and the position of the recording balloons.