

resultant generalized vasoconstriction affected by the central nervous system."

Conclusions. The findings of Davis and coworkers on the effect of administering a concentrated solution of sodium chloride have been corroborated. However, it seems apparent from our observations that the intra-arterial administration of 25% saline solution cannot be recommended as an emergency treatment for secondary shock. In spite of the immediate vasopressor response and in spite of the fact that the increased blood pressure may be maintained for a while, the final result of the injections is severe injury to the recipient.

10326 P

Technic for the Study of Secretions from the Oral Mucosa in Humans.

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To our knowledge the secretion from the oral mucosa of humans has been observed^{1, 2} but has neither been collected nor measured. Shafer³ wrote that, "Secretion of the mucus glands of the mouth have not been obtained in man." However, Montgomery and Stuart⁴ found that secretions from the oral mucus membrane can be directly observed in dogs and humans. They reported that, "Like the salivary glands they do not secrete continuously, but only in response to a large number of unconditioned and conditioned reflex stimuli." But the repeatedly confirmed findings of a continuous parotid gland flow in humans in the absence of marked extero-stimulation and the fact that the oral mucosa and the parotid glands have a similar type of neural innervation suggested the possibility that more accurate measures would be more revealing. We were able to collect and measure both inactivated as well as activated secretion from the oral mucosa of human subjects by means of the following technic:

Small discs similar to those used for the collection of parotid secretion⁵ are fastened by suction over different regions of the oral

¹ Cerutti, P., and Verzola, M., *Gior. ital. di dermat. esif.*, 1935, **76**, 1269.

² Montgomery, M. F., *Proc. Soc. Exp. Biol. and Med.*, 1934, **31**, 717.

³ Shafer, E. A., *Textbook of Physiology*, 1898, Vol. 1, p. 344.

⁴ Montgomery, M. F., and Stuart, J. S., *Am. J. Physiol.*, 1936, **115**, 497.

⁵ Lashley, K. S., *J. Exp. Psychol.*, 1916, **1**, 461.

mucosa. The discs consist of 2 separate chambers. Both chambers are supplied with slender rubber tubes which pass out through the mouth. The disc is held in place by means of a slight amount of suction which can be applied by gently sucking the exposed end of the rubber tubing which is attached to the outer chamber. The secretion is free to flow through the inner chamber and push a bead of water through a calibrated capillary tube which is attached to the rubber tubing that leads out from the inner chamber. The secretory pressure of the inactivated as well as the activated secretion is adequate to move the bead of water through the capillary tubing.

The secretion from the oral mucosa is the most viscous of the salivary secretions. If the discs are removed with care the secretion adheres to the discs and may be collected for qualitative analyses. In some cases an hour may be necessary before a 0.05 cc sample of inactivated secretion can be obtained. Activated or stimulated secretions can be obtained more readily. The secretagogic activity of chewing dry bread serves adequately when larger samples are desired. In our studies on parotid secretion⁶ we found the parotid secretory activity to be a sensitive index of organic changes. Although the glands in the oral mucosa have a similar neural innervation and are readily accessible, their excessive viscosity and slow rate of flow limit their use for this purpose. However, by means of the suction discs it is possible to collect samples of secretion which may be of some diagnostic aid.

These discs, which were originally developed by Lashley can also be used in some cases as a substitute for cannulation in the study of other glandular activities in animals.

10327

Rôle of Capsule in Suprarenal Regeneration Studied With Aid of Colchicine.

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All the successful functional transplants reported in the literature seem to depend upon the creation of an initial suprarenal insufficiency, as originally postulated by Halsted.¹ Such studies have been

⁶ Winsor, A. L., and Korehin, B., *J. Exp. Psychol.*, 1938, **23**, 62.

¹ Halsted, *J. Exp. Med.*, 1909, **11**, 175.