in 4 g. quantities in sealed packages to be opened at the bedside or in airtight screw cap containers, from which they may be dispensed by the teaspoonful (3-4 g.).

Four grammes of these granules containing 26 mEq. of potassium dissolve rapidly in a glass of water making a pleasant effervescent drink which may be flavoured with fruit juice if so desired. Solution is complete within 30 seconds and the potassium residues remaining in the glass amount to less than 0.1 mEq.

A dose of 8 to 12 g. of these granules daily causes a minimum of gastric disturbance yet provides an intake of potassium large enough to combat potassium depletion in all except the most extreme clinical contingencies. Reliability of solution and absorption commends the use of this preparation in preference to enteric-coated potassium tablets.

REFERENCE

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A method of measuring gastric pressure during vagotomy

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During the use of the test for completeness of gastric vagotomy described by Burge and Vane (1958) some difficulty has been found with the change in gastric pressure caused by respiration.

The test consists of stimulating the vagus nerves with an electrode placed around the oesophagus. This stimulation produces a rise in gastric pressure which varies with the size of the nerves present. Using an ordinary water manometer and the stomach being distended with air to a pressure of 20 cm.H₂O, respirations cause a rise in gastric pressure of between 1 and 3 cm. The heart beat may also cause a slight rise in pressure. On stimulation, the average vagal nerve trunk produces a rise of between 4 and 10 cm. A small nerve, however, may produce an increase of only 1 cm. and is not easy to observe if respiration is present.

It was decided to attempt to make use of the fact that the respiratory rise only lasts a few seconds whereas that due to the presence of an intact nerve lasts some 20 seconds. An apparatus has been devised in which the quick rise and fall in gastric pressure caused by respiration is not recorded and yet remains sensitive to the slightest change in gastric tone caused by vagal stimulation.

THE APPARATUS

In its simplest form the apparatus consists of two reservoirs of water, (A) and (B), connected together with a plastic tube. The side tubes over which the plastic tube fits have very narrow bores to produce a high fluid resistance. A glass tube (C), of about 5 mm. bore, dips into reservoir (A). A glass capillary tube (D) dips into reservoir (B). This tube is drawn out to a fine bore at its lower end. Both tubes are fitted with scales, that on tube (C) being marked to indicate a pressure of 20 cm.H₂O. The scale on tube (D) is graduated in centimetres and may be slid up and down the tube.

In use the stomach is distended with air to a pressure of 20 cm. of water as shown on tube (C). The scale on tube (D) is then adjusted until the zero corresponds with the level of fluid in the tube. The vagi are then stimulated. Tube (C) will show at once all pressure changes due to respiration, heart beat, and gastric tone. Only the sustained

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rise in pressure caused by vagal stimulation will produce a rise in tube (D). Any increase in pressure in this tube may be regarded as demonstrating the presence of a vagal nerve.

It would seem possible that this simple device might find other applications where it is desired to measure changes in pressure without interference from extraneous movements.

The apparatus is easily made in any hospital laboratory from two 6 in. $\times$ 1 in. test-tubes and various pieces of glass and plastic tubing.

My thanks are due to Mr. Harold Burge for his encouragement and to Dr. L. Chapman for his help in making the prototype.

REFERENCE

Burge, H., and Vane, J. R. (1958). *Brit. med. J.*, 1, 615.

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