

obligatory to feed my patient at first with minute quantities of food, given at short intervals. The results of this method of procedure were in all respects happy ones. Quantities of food approaching ten ounces seemed to excite vomiting. So, too, cold fluids resulted in diarrheal discharges and may have been partly responsible for the rise of temperature.

Keeping in mind the absence of mechanical function, the patient's dietary was at first a strictly fluid one. But as early as the second week after removal of the stomach, semi-solid and even solid food was allowed. It was retained and digested without discomfort. The patient having only a single tooth, mastication was of course quite imperfect, otherwise it seems to me possible that an ordinary mixed diet might have succeeded at a still earlier date.

Some weeks after the operation the patient's ordinary daily diet was as follows: At regular intervals of from two to three hours she took milk, eggs, thin gruel or pap, tea, meat, rolls, butter and Malaga wine. The daily quantity amounted to one quart of milk, two eggs, two to three ounces of pap or gruel, seven ounces of meat, seven ounces of oatmeal or barley water (as thick almost as gruel), one cup of tea, two rolls and half an ounce of butter.

Personally, I felt most concerned about the obliteration of all chemical activity on the part of the absent stomach. I soon perceived that adding pepsin and hydrochloric to the food was theoretically as inadmissible as it had been found practically valueless. The alkaline fluids of the intestine at once neutralized the acid and rendered the pepsin inert.

Fortunately, it soon became apparent that despite the absence of acid pepsin proteins were readily assimilated in the intestinal tract.

Does Gastric Acidity Influence the Decomposition of Intestinal Contents?—This moot question received contributory elucidation by the careful study of the patient's discharges after the operation. The urine and feces were examined every day at the chemical laboratory of the university. Products of abnormal intestinal fermentation or decomposition (skatolyl and indoxyl) were either not at all found

or else discovered only in traces.

These observations tend to corroborate the views of v. Noorden,* while it negatives the opinion held by Kast and Wasbutski. The most recent results of laboratory experiments announced from Professor Baumann's Institute, viz., that hydrochloric acid inhibits intestinal decomposition, thus received no support from actual observations in the living human subject.

Does Removal of the Stomach Affect the Rapidity of Intestinal Propulsion?—Observations on this point are still being made, and at the present time I am unable to present any very definite conclusions. The patient objected to swallowing charcoal. Huckleberries were at three different times found in the passages, twenty-four hours after having been swallowed.

The Urine After the Operation.—Apart from a daily recurring diminution in the quantity of excreted chlorides, the urine of this woman has remained normal since ablation of her stomach. The daily excretion of chloride of sodium has been found to vary between the limits of 0.6 per cent and 0.95 per cent. It should be stated in this connection, however, that, complying with the wish of the patient, her food is prepared with less salt than that of the other ward patients.

Microscopical Examination of the Feces.—The stools were well formed, of normal consistency, and light yellow in color. The microscope showed large numbers of fat globules and fatty crystals, some undigested vegetable fibres, but no undigested vegetable fibres or connective tissue. Large quantities of triple phosphates were observed. The number of micro-organisms was normal. Altogether repeated examinations revealed no noteworthy departure from a condition of perfect health.

Vomiting Without a Stomach.—How can a person vomit without a stomach?—No matter what theoretical physiological notions we may have imbibed from lectures and text-books, the woman under observation had repeated attacks of ordinary nausea, retching and vomiting. We must needs conclude, therefore, that the role of the stomach (i. e., its antiperistaltic efficacy) in this direction has