

MURDOCH (F. H.)

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STOMACH TUBE.

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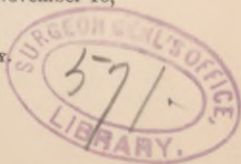
THE USE AND ABUSE OF THE STOMACH TUBE.*

BY FRANK H. MURDOCH, M. D.,
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MY reason for writing this article is the fact that a great many physicians seem to be under the impression that specialism in the treatment of diseases of the stomach consists principally, at least in all refractory cases, in the systematic use of lavage. It is perhaps true that after the soft tube came into general use washing out the stomach was tried in almost every form of disorder, but it is also true that to-day we know that lavage is no more indicated in every serious form of stomach trouble than is digitalis in every serious disease of the heart. Both are remedies potent for good when employed in carefully selected cases, and both, by being used indiscriminately, may do infinite harm.

To treat diseases of the stomach successfully, we must become familiar with the condition of every other organ in the body. In addition to finding out what the patient complains of, and whether these complaints have any time relation to the ingestion of food,

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we must look into the condition of the teeth, the tongue, the heart and lungs, the brain, and the general nervous system. We must examine the liver and ascertain if the kidneys are in their normal position, and whether or not there is enlargement of the spleen. We must analyze the urine and see if we can find sugar or albumin or casts, or any evidences of fæcal absorption, and, at least in cases of suspected cancer, we should also examine the blood. We must determine the size and position of the stomach, if necessary by dilating it with air, or by means of the gastrodiaphane; and yet, after we have done all this, we may, at least in very many cases, be left to grope in the dark, unless we go still further and make an analysis of the gastric contents. It must not be supposed, however, that such an examination is necessary in the case of every patient who comes to us, but in serious trouble of long standing no other means of diagnosis will enable us to do justice either to ourselves or our patients.

And this brings me to speak of the stomach tube itself, which may be used—

1. For diagnostic purposes.
2. To empty the stomach in certain forms of poisoning.
3. For lavage.

For diagnostic purposes the soft tube should be dipped in warm water and introduced into the stomach an hour after Ewald's test breakfast has been taken, and the contents obtained by expression. After filtering, we examine for hydrochloric acid and ascertain the amount. We then examine for organic acids, for rennet and pepsin, for albumin, propeptone and peptone, for erythro-dextrin, achroo-dextrin, and sugar. This ex-

amination will enable us to determine what drugs, if any, are required, and it will also inform us as to what the patient should eat, a question which is always of prime importance in the treatment of these cases.

The second indication for using the stomach tube is to evacuate the stomach in certain forms of poisoning. Here the soft tube should also be used, and it may be introduced into the stomach even when the patient is in a state of deep coma (1). It was in 1875 that Ewald, being called to see a case of prussic-acid poisoning, accidentally discovered that a piece of gas-tubing could be made to reach the stomach, and ever since soft tubes instead of hard ones have been in general use.

The tube should not be passed in poisoning from caustic alkalies lest the wall of the stomach might be perforated, and in cases where acids have been swallowed it is rarely necessary to use it, as they may be readily neutralized by alkalies.

In regard to the third point, Einhorn (2) employs lavage in just two conditions—viz., stagnation of food in the stomach, and in cases where a large amount of mucus is found in the organ. Ewald uses it in similar conditions, and also recommends it in chronic gastritis, as a means of increasing the activity of the glands (3).

Whenever there is stagnation of food in the stomach there is dilatation of the organ, and it is in this class of cases that lavage has given such brilliant results. This treatment, however, even when combined with proper diet and regular exercise, will only give relief so far as the subjective symptoms are concerned, but will not cure the dilatation; for when the stomach becomes chronically enlarged, it never again returns to its normal size (4). Occasionally a large quantity of

mucus is found in the stomach in cases of hyperchlorhydria (as in Case VI, reported at the end of this paper), but as a rule we find it most frequently in gastric catarrh, where the hydrochloric acid is diminished or absent. In cases where we have reason to believe that the gastric juice is absent, not on account of atrophy of the mucous membrane, but owing to causes not yet fully determined (5), even where there is no mucus and no dilatation, lavage may be useful in helping to restore the glands to a condition of activity.

The abuse of the stomach tube consists in employing it in any other conditions than in those just mentioned.

No.	Name.	Age.	Duration of illness.	Condition indicating lavage.	Am't HCl.	Total acidity.
1	Mr. H. F. S.	33	7 months.	Gastroptosis and dilatation.	84	144
2	Mr. J. M. McK.	51	2 years.	Motor insufficiency and dilatation.	52	68
3	Mr. J. B. H.	34	8 months.	Constant distress, vomiting, bloating, and belching.	0	40
4	Mr. R. A. C.	22	18 months.	Constant distress and at times pain; daily vomiting; had lost 52 pounds in weight.	0	28
5	Mr. F. T. D.	65	7 years.	Distress in stomach, preventing sleep; bloating and belching.	0	80
6	Mr. H. A. W.	46	20 years.	Distress after eating, bloating and belching; large quantity of mucus.	44	76

Its use is contraindicated, according to Martin (6), in thoracic aneurysm, in serious cardiac disease, in recent bleeding from any part, in great debility, or in patients of advanced age, and in gastric ulcer. The dangers connected with its use are: syncope from sudden filling and emptying of the stomach, thus changing

the pressure on the great abdominal plexuses, and tetany, of which several fatal cases have been reported, and which could not be attributed to any other cause.

Permit me to say, in closing, that in looking over my note-book I find that in fifty-nine patients, recently treated for stomach troubles, many of them of a serious nature and of long standing, lavage has been used only in the six described in the above table.

It will be seen that in three of these cases there was absence of hydrochloric acid. In one of them (No. 3) the gastric juice returned in normal quantity after three months of treatment. The other two patients live out of the city, and I have not yet had an opportunity of making a second examination of their gastric contents.

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1. Ewald. *Diseases of the Stomach*, p. 331.
 2. Einhorn. *Twentieth Century Practice*, vol. viii, p. 184.
 3. Ewald. *Diseases of the Stomach*, p. 343.
 4. Ewald. *Diseases of the Stomach*, p. 150.
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 6. Martin. *Diseases of the Stomach* (London), p. 154.
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