

## THE USE OF THE STOMACH-TUBE.\*

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I do not expect to say anything new in connection with the use of the stomach-tube, but desire simply to bring to the notice of the members of this Association one of the most valuable aids to the diagnosis and treatment of stomach diseases that has of late years been introduced into medicine. Every one of us must, at times, have felt our powerlessness to efficiently treat a large class of gastric affections by means of drugs and diet, which, with the aid of lavage of the stomach, now yield most satisfactory results to both patient and physician. Before proceeding to speak of the uses of the stomach-tube, I would like first to refer to the tube itself and the proper method of introducing it.

*The tube* which, after a considerable experience, I find gives the most satisfaction, is a soft rubber, varying in diameter from  $\frac{1}{4}$  to  $\frac{1}{2}$  inch, with the lower end open and having a fenestra near the extremity. Tubes with blind ends should be avoided, as they are difficult to clean. The tube should be about 60 inches in length and may have a bulb near its centre, which serves to suck up the stomach-contents. The bulb may be obtained separately from the tube and attached as circumstances require. The bulb is rarely required, the plain tube answering every purpose. The outer extremity of the tube should either be expanded into a funnel, or have a vulcanite or glass funnel attached. Dr. Attfield strongly recommends an elastic silk tube, which he claims possesses several advantages over those made from india-rubber.

*Method of introducing the tube.*—There is usually little or no difficulty in introducing the tube, even in the most nervous patients. In very sensitive persons it will be well for the first few times, to paint the posterior pharyngeal wall with a 10% solution of cocaine, a few minutes before attempting to introduce the tube. The patient should be positively assured that there is no danger of suffocation. The tube should not be lubricated with either oil or vaseline, but should be dipped in warm water, immediately before its introduction. It is quite unnecessary to pass a finger into the patient's mouth, to guide the tube. Let the pa-

tient be seated on a chair, opposite a good light, with the mouth open; then pass the tube quickly to the back of the pharynx, and ask him to swallow. As soon as the tube is grasped by the muscles of deglutition, it can be readily passed on into the stomach. In very nervous patients, I have occasionally failed to pass the tube completely into the stomach on the first attempt. In such cases it is well not to attempt too much at the first sitting, as in the course of a day or two the tube can usually be passed completely, without difficulty.

*Uses of the stomach-tube.*—1st. It is used to obtain the stomach-contents, for purposes of examination by chemical and other means, and thus enable us to determine their nature and the digestive activity of the stomach. In order that an examination of the stomach-contents may be attended with satisfactory results, as uniform a method as possible should be adopted. To this end a test meal should be given, probably the test breakfast recommended by Ewald is as simple and satisfactory as any. This consists of an ounce of white bread and twelve ounces of weak tea without either milk or sugar, and is to be given on an empty stomach. One hour afterwards the stomach-tube is introduced and the stomach-contents obtained by means of abdominal pressure or aspiration. It would be interesting to refer to the examination of the stomach-contents, but as this does not fall within the scope of this brief paper, I pass it by.

2nd. It is used to distend the stomach with air, in order that its position and size may be determined. To do this, the double bulb of a spray apparatus may be attached to the stomach-tube after its introduction, and air pumped in. By this method a suitable degree of distension of the stomach may be readily obtained, without discomfort to the patient. When the stomach is distended we can easily ascertain its position and size by means of inspection, palpation and percussion.

3rd. Its chief use is to wash out the stomach in certain diseased conditions of that organ. The method of doing this is very simple. After the introduction of the stomach-tube as already described, a funnel is attached to it. The funnel is raised above the patient's head and about 20 ozs. of water, at a temperature of 100° F., is gradually poured into the stomach; the funnel is then low-

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