The Inspection of the Œsophagus and the Cardia.

BY

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THE INSPECTION OF THE ŒSOPHAGUS AND THE CARDIA.*

By MAX EINHORN, M. D.

It is well known that the problem of inspecting the œsophagus has been worked at for quite a number of years. The first attempts in this direction were made by Störk,† who introduced some kind of a speculum into the œsophagus and tried to obtain a view of it by means of a laryngeal mirror. Similar attempts had been made by Waldenburg,‡ and later also by Mackenzie.# This method, however, proved to be inadequate, as it is only possible to see a little spot, but not a larger area.

In 1881 Mikulicz‖ first succeeded in inserting a

* Read before the German Medical Society of the City of New York, October 4, 1897.

† Störk. Die Untersuchung des Oesophagus mit dem Kehlkopfspiegel. *Wiener med. Wochenschrift*, 1881, No. 8.

‡ L. Waldenburg. *Berl. klin. Wochenschrift*, 1870, No. 48, p. 578.

Sir Morell Mackenzie. *Diseases of the Throat and Nose*, vol. ii, 1884, p. 31.

‖ Mikulicz. Ueber Gastroskopie und Oesophagoskopie. *Wiener med. Presse*, 1881, Nos. 45, 46, 47, 48, 49, 50, 52.

straight tube into the œsophagus, and was able to look directly into it by means of reflected light. This instrument which Mikulicz designed has since undergone but slight and unessential modifications; thus the original method still prevails.

Besides Mikulicz, von Hacker,* of Vienna, has done a great deal of work in œsophagoscopy, and I may say that this investigator deserves almost as much credit as Mikulicz himself. Von Hacker was the first who examined a great number of patients with the œsophagoscope. The valuable papers of this writer were published in the *Wiener klinische Wochenschrift* of 1889, 1894 and 1896. Later on, Theodor Rosenheim † also took up the subject of œsophagoscopy and modified Mikulicz's instrument in such a manner that the obturator ended in a blind piece of rubber tubing two inches in length (see Fig. 1, A). The end of the œsophagoscope is in this way flexible and can, according to Rosenheim, be much more easily inserted. I do not think that the rubber end of the obturator is of importance; it also has the disadvantage that a thorough cleansing or disinfection of the instrument is thereby made materially more difficult. For this reason I have constructed the obturator in such a way that it can serve as a cotton holder by means of a screw arrangement. The end of the obturator being wrapped with cotton and the screw tightened, it is inserted into the œsophagoscope, the lower opening of which is then neatly closed by the cotton (Fig. 1, G). Each time the

* Von Hacker. *Wiener klin. Wochenschrift*, 1889, No. 23, p. 469; 1894, Nos. 49 and 50; 1896, Nos. 6 and 7.

† Th. Rosenheim. *Deutsche med. Wochenschrift*, 1895, No. 50; *Berl. klin. Wochenschrift*, 1896, Nos. 13, 14, 15.

instrument is used a fresh piece of cotton is wrapped around it.

In regard to the modifications of the œsophagoscope,

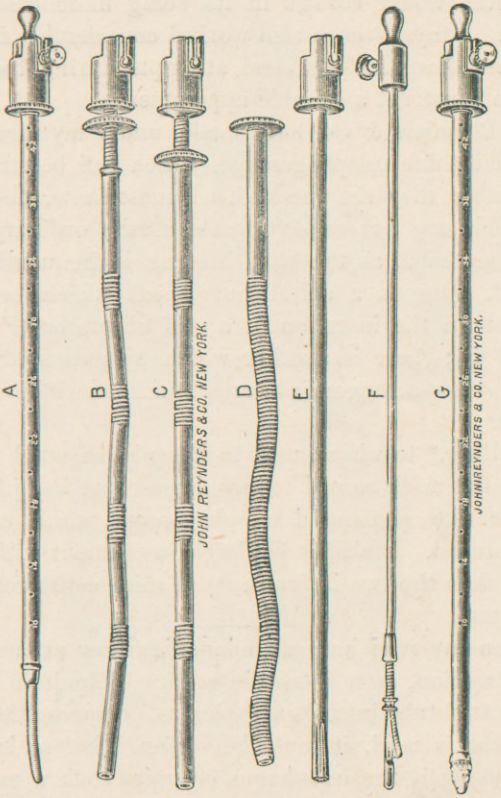

FIG. 1.—Mikulicz's œsophagoscope. A, Rosenheim's modification, the end made of rubber; B, C, and D, E, flexible œsophagoscope; C, the flexible œsophagoscope made stiff by means of the screw; F, the obturator serving as a cotton holder; G, the œsophagoscope, with the obturator F, occluding the opening.

various investigators have tried to construct a metallic tube which would be flexible while it was inserted into the œsophagus, but which could be straightened afterward by some arrangement. The advantage of such an apparatus would consist in its being more easily inserted. I myself have also worked considerably in this line, and have made several attempts during the past year to construct a suitable apparatus.

J. Reynders & Co. have made, under my direction, several flexible œsophagoscopes which can be straightened after they are inserted. I must state, however, that they are not so serviceable as the ordinary stiff œsophagoscope, as the straightening is frequently not perfect. One is a spiral instrument which becomes straight on the insertion of a stiff obturator (Fig. 1), D and E); there is another which by means of wires and a screw arrangement can be made flexible or stiff at will.

Kelling,* to whom, next to Rosenheim, much credit is also due with regard to œsophagoscopy, has just devised a new segmented œsophagoscope which can be straightened. Probably Kelling's instrument will work better than the two instruments of mine constructed by Reynders.

I on my part have abandoned further attempts in this direction, as it is not in reality difficult to introduce a stiff tube into the œsophagus. Suppose the flexible tube is used, it must be stiffened before looking through it; if the œsophagus occupies such a position that a stiff tube can not be pushed down, even the flex-

* Georg Kelling. Boas's *Archiv f. Verdauungskrank.*, Bd. ii, pp. 321 and 490; *München. med. Wochenschrift*, 1897, No. 34.

ible instrument can not then be straightened without eventually causing some lesion. On this account I do not deem all these modifications essential, and believe

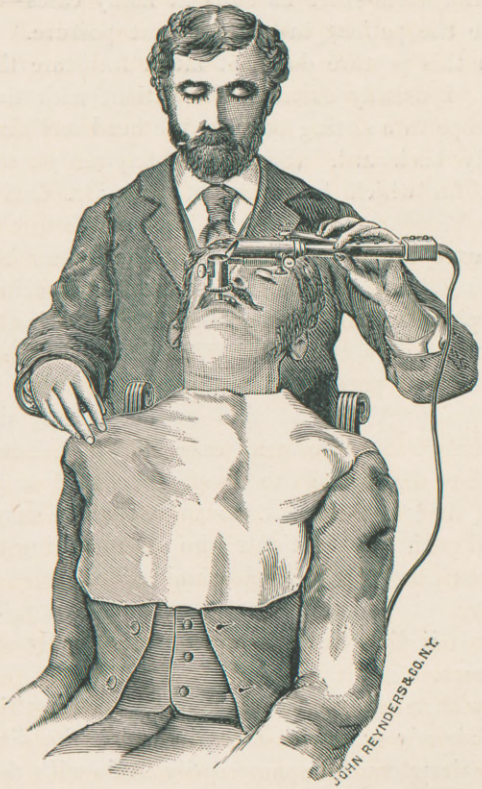

FIG. 2.—Photograph of a patient during examination with the œsophagoscope, showing the instrument in position. The panelectroscope having been attached to the œsophagoscope, the physician is enabled to inspect the gullet. During the withdrawal of the œsophagoscope the entire œsophagus can be viewed.

that we can efficiently make use of the original instrument of Mikulicz and von Hacker.

It has been suggested by Rosenheim and von Hacker to cocainize the pharynx if necessary—Kelling employs even chloroform-ether narcosis in many cases—and to examine the patient in a recumbent posture. In my opinion this posture does not much facilitate the procedure. I usually examine the patient with the œsophagoscope in a sitting posture, the head reclining considerably backward. (See accompanying photograph, Fig. 2, for which I am indebted to Dr. Carl Goldmark.)

In exceptional instances chloroform-ether narcosis will be necessary. In most cases even the cocainization of the pharynx will not be essential; I, at least, have been able to do without it. [The author then demonstrated on two patients the examination with the œsophagoscope.] I do not find œsophagoscopy difficult of execution. In almost all cases in which I have attempted to introduce the œsophagoscope I have succeeded. It is self-evident, however, that we may meet now and again with patients who are unwilling to submit to an œsophagoscopical examination.

With regard to the value of œsophagoscopy, I must say that it is diagnostically and therapeutically of great importance.

Notwithstanding my meagre experience in this field, I have already met with cases in which the diagnosis of a neoplasm could be more easily made with the œsophagoscope. Thus, I have recently examined a patient with dysphagia in whom the œsophagoscope revealed several spots at the cardia which were dark red and intermingled with white tissue. This at once gave the

impression of being foreign, of a tissue that ought not to be there. Normally the cardia appears somewhat reddish, while the œsophagus presents a whitish-gray hue. In another case in which there was likewise the suspicion of a cancer of the cardia, the latter did not show anything abnormal. Instead of my seeing, however, above the cardia the œsophageal wall, there appeared here suddenly an empty space. This seemed to point to a dilatation of the œsophagus without a stricture. This diagnosis could also have been arrived at from a study of other symptoms. At any rate a cancer of the cardia could be positively excluded by the œsophagoscopical examination.

I fully coincide with the following remarks of von Hacker with regard to œsophagoscopy:

"The experience at hand with regard to the utilization of œsophagoscopy may still be expanded and the method improved. By means of œsophagoscopy, our knowledge of the appearance and the physiological condition of the inner coat of the œsophagus, which until recently was invisible to the eye, has been enlarged, and our views on the morbid conditions of this organ and their course have been materially advanced. . . .

"It is certain that the œsophagoscope is already of aid in the early recognition or exclusion of cancer of the œsophagus or of the cardia of the stomach. It aids us also in discovering foreign bodies in the healthy as well as the diseased gullet and in quickly and delicately removing such bodies without a bloody operation. Thus, it is diagnostically and therapeutically of the highest importance."

In conclusion, let me emphasize the statement that œsophagoscopy will undoubtedly prove of great value

in diagnosis as well as therapeusis, and I firmly believe that this method will become popular. It may, perhaps, still take some time, but there is no doubt that the œsophagoscope will have a lasting place in medicine.

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