in a recent number of *Virchow's Archiv*, which I had overlooked, in which Behrend describes and figures a somewhat similar nodosity of hair due to the presence of micrococci. He also describes a method of double-staining, employed by Guttman, with fuchsin and methylene-blue in watery solution, with which, however I have been unable to obtain as satisfactory results as with Gram's method, using eosin as a contrast stain.

REMARKS UPON THE TREATMENT OF CANCEROUS STRICTURE OF THE OESOPHAGUS BY MEANS OF INTUBATION: WITH ILLUSTRATIVE CASES.

By GEORGE HOOK RODMAN, M.D.

DURING 1887, whilst House-Surgeon at the Radcliffe Infirmary, Oxford, I was enabled, through the courtesy of Mr. Horatio Symonds, to carry out this form of treatment in several instances of cancer of the oesophagus, and the results then obtained, as far as the alleviation of suffering, the improving of nutrition, and the prolongation of life were concerned, compared very favourably with the results of treatment of similar cases by gastrostomy.

Mr. A. Durham reports that, up to 1883, he knew of 50 cases of gastrostomy for cancer of the oesophagus, of which cases 25 resulted in death within one week of operation, and of these 15 died within forty-eight hours. In only 5 cases of the 50 did the patient survive three months. A similar experience is noted by Polum¹; for, out of 103 cases collected by him, only 50 lived for more than one week.

CASE I.—G. B., aged 60, a publican, was admitted an in-patient on March 3rd, 1887, having previously been under my notice as an out-patient suffering from dysphagia. On March 2nd he was unable even to swallow fluids, and at this time weighed 8 stone 3 lbs. There was no history of syphilis or of the swallowing of a corrosive as the cause of his trouble. An examination of his throat and chest failed to show the presence of any tumour—aneurysmal or otherwise. An ordinary oesophageal bougie was arrested at a point ten inches and a half from the central upper incisor teeth. I was able, at the first attempt, to pass a No. 11-sized, short funnelled tube through the stricture. On a diet of beef-tea (strained), custard, whipped eggs, and port-wine his general condition rapidly improved, his weight increasing by 7 lbs. during the first eight days. To the upper end of the tube was fixed a silken cord, which, passing through the mouth, was attached to the ear.

G. B. was made an out-patient on April 7th; he reappeared on May 4th, with the tube, which had remained *in situ* for eight weeks, blocked; but by means of the silk it was easily withdrawn, and on removal was found to be obstructed at the eye. This tube was replaced on May 14th by a No. 9, and this worked well till June 11th, when it was thought that the muco-purulent secretion from an extension upwards of the growth was the cause of the obstruction in the tube, so a long india-rubber funnelled tube was substituted for the short one. The patient was fed through this, and subsequently died of exhaustion on August 21st, 1887, 171 days after his primary admission. The necropsy disclosed malignant stricture of the oesophagus.

CASE II was also that of a publican, A. S., aged 57, who was admitted in a state of collapse on April 15th, 1887, suffering from inability to swallow even fluids, which had been complete for three days. The usual history of malignant stricture of the oesophagus was given, but no swallowing of a corrosive or of syphilitic infection could be obtained as a cause. He had had trouble in deglutition for seven months. Previously to the onset of his illness, he weighed 12 stone; he weighed on admission 8 stone 4½ lbs. The stricture arrested a bougie at thirteen inches and a half from the teeth. I made several attempts to pass a short No. 9 tube without success, but subsequently a No. 7 was passed through the stricture with ease. By means of this, a carefully prepared diet consisting of beef-tea two pints, milk two pints, two eggs, thin corn-flour, cocoa and port-wine 3iv, together with 3iss cod-liver oil per day, was introduced into his stomach. Under this treatment he rapidly improved, and on April 20th, five days after admission, he scaled 9 stone 2½ lbs. (an increase of 11½ lbs.) His food was taken with a relish, and he suffered no inconvenience from the presence of the tube; in fact, he stated that if he had not seen the tube passed down his throat, he would not have known of its

existence, save for the silken cord passing through his mouth. On April 25th he scaled 9 stone 6½ lbs., thus having gained 16 lbs. in ten days. An accident, for which I was not prepared, happened shortly after his discharge as an out-patient on April 25th. The constant friction of the teeth upon the silken cord led to its severance, and as the result the tube was no longer within easy reach. Attempts to remove by forceps proved futile. The patient was most emphatically warned against the taking of any food likely to clog the tube, and it was doubtless, owing to his careful observance of these directions that the tube worked well for a lengthened period. He presented himself for inspection from time to time, and retained his strength, being again able to attend to his business. Matters progressed in this way till October 3rd, when during the morning he handed me the tube, still perfectly intact, with the explanation that, "whilst coughing, it had suddenly come up." This tube had been *in situ* since April 15th, a period of 171 days. At his own request, he was allowed to dispense with the tube, but returned in the course of three weeks, quite unable to swallow. Several tubes were subsequently introduced, but became blocked in the same way, and probably from the same cause as in Case I. On October 28th a long tube was substituted, but the patient died on November 4th. No necropsy was permitted. In this case, notwithstanding that the patient was nearly starved when admitted on April 15th, and certainly not in a condition in which a severe operation such as gastrostomy would be justified, under the treatment by intubation, he survived for a period of 203 days, during a considerable portion of which he was enabled to carry on his usual duties.

From the lesson of this case, I sought for some means to prevent a similar slipping of the tube beyond reach, and shortly after had a chance of testing a tube, in which I had replaced the silken cord by "gimp," such as is in use in pike fishing, to prevent the sawing through of the contiguity of the line by the pike's teeth. On my next patient I was able to try this modification, and then found that there was a decided disadvantage—in that the harsher cord caused irritation of the corner of the mouth; this, however, I obviated by covering the portion of the gimp passing through the mouth with a thin rubber casing. The case of A. S. further teaches that a tube may remain, without being changed, for a much longer period than that usually advised. In this instance the same tube remained *in situ* from April 15th to October 3rd, a period of upwards of twenty-four weeks. More frequent changing, besides tending to irritate and thus render the growth more rapid, naturally increases the risk of forming a false passage—a not uncommon accident where the growth is soft and the oesophageal walls much thinned and deflected from their normal course. Another point of considerable practical importance concerns the construction of the tubes. They should be so made that the eye is at the extreme end of the tube; or, if lateral, that the tube should not be perforated to the slightest degree below the level of the eye. If these details be carefully attended to, there will be less risk of the action of the gastric juice causing a small clot of casein or other material, which will, in its turn, form the nucleus of a larger plug that will, sooner or later, necessitate the substitution of a fresh tube. No septic troubles were set up by the prolonged wearing of the same tube.

CLINICAL MEMORANDA.

PNEUMONIC FEVER, OLD AND NEW.

As a small contribution to the subject under discussion, I should like to state that a year ago I treated three cases of pneumonia occurring in the same cottage, and apparently of an infectious nature. The first to fall ill was the occupier of the house. His wife nursed him for about a week, and then, to my surprise, herself developed acute pneumonia. The eldest son, a lad of 19, tried to nurse them both, but rapidly broke down and became fearfully ill with acute double pneumonia. The father, owing largely to his intemperate habits, failed and died. His wife and son barely escaped with their lives. In all three cases fever ran high, there was delirium at night, great rapidity of breathing, and more bloody expectoration than is usually seen in ordinary pneumonia.

In treating these cases I did not think I was dealing with some new specific fever, for although I had never before seen cases of infectious pneumonia, I knew they occurred, and I had a clear

¹ Arch. gén. de Méd., November, 1883.