This does not meet the whole expense, by any means, which averages about \$10.00 per week per baby.

The Newton Hospital, to which, as I have stated, Wellesley sends her contagious cases, has about 75 beds. About half the patients pay their way. The free beds are for Newton patients. Its chief value to our members therefore is for cases of contagious diseases who can pay. Doubtless similar arrangements can be made with the Brookline authorities, as Milton does.

I received also numerous reports from homes to which we may recommend patients. But as nearly all insist upon the good health of their applicants they cannot properly be considered as hospitals. There are two exceptions: Massachusetts Infant Asylum and St. Mary's Infant Asylum, as noted before.

There ought to be a diet kitchen in this part of the city. Formerly there was one on Ruggles Street, but this has been discontinued. The only place of which I can learn where one may secure needed supplies for a sick child is the North End Diet Kitchen on Common Street, Boston. Perhaps some of you can add to this. In the summer time the milk fund and Whiting's Distributing Centers help a great deal.

Finally, mention should be made of a large number of philanthropic societies which are ready to take up any case we may refer to them and to locate it in the institution most suitable or most available. Among these are the Society of St. Vincent de Paul, Massachusetts Society for Prevention of Cruelty to Children, Children's Aid Society, Barnard Memorial Society for helping Destitute Mothers and Infants, and lastly, in Boston and in each town, are the Overseers of the Poor.

I must apologize for the bareness of this outline. Time forbids more details or the consideration of other institutions.

In conclusion let me say that the replies I received to my inquiries always evinced the greatest willingness, even anxiety, to render help to the child for whose sake they supposed I was inquiring. They will help you in this same way. But remember, sometimes the beds are all full. Then help that admitting physician, *if you can*, by trying one of the other institutions which does similar work.

Clinical Department.

DIAGNOSIS OF DILATATION OF THE DUODENUM; A CLINICAL NOTE.

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(From the Service of Dr. J. J. Minot, Long Island Hospital).

DURING the past year or two considerable interest has been aroused in the subject of dilatation of the duodenum by the observations of surgeons in their operations on the stomach,

duodenum and gall bladder. Ochsner¹ has called attention to the presence of a duodenal sphincter and its possible action. Zade,² Finney³ and others have pointed out that dilatation may result from obstruction due to the traction of the root of the mesentery over the lower end of the duodenum in conditions of enteroptosis. The possibility of duodenal atony associated with gastric atony and pyloric relaxation may be assumed as another factor in etiology. However, the case which I here report is of interest rather from the point of view of diagnosis, since the case was observed before much attention had been directed to this subject, and consequently no very special observations as to a possible cause for the condition were made, either at operation or autopsy.

P. H. was first admitted to the Long Island Hospital, Dec. 31, 1903, complaining of pain in the stomach after eating, occasional vomiting, and constipation. At that time he was seventy years of age, in a good condition of nutrition. His peripheral arteries were moderately thickened and tortuous. His abdomen was flaccid, not tender. No tumor masses could be made out. Pressure on the epigastrium and left hypochondrium caused eructations of gas. Gastric lavage was instituted, and with cathartics the patient's condition improved. In one month he gained ten pounds in weight. Before discharge, Feb. 1, 1904, inflation of the stomach showed the lower border to be 3 cm. below the umbilicus.

Patient remained well until about June 1, 1904, when the symptoms recurred. He was readmitted to the hospital July 18, 1904, in a somewhat feeble condition. He remained until the last of August. During this stay he developed an abscess of the buttock, which was incised under ether anesthesia. Sept. 17, 1904, he was again admitted, suffering from a contusion of the shoulder, received from a fall in the street. At this time he again complained of pain and distress in the epigastrium, relieved by vomiting. This gradually improved, and toward the end of October he was discharged from the hospital to the pauper institution, where he remained until March 23, 1905, when he was readmitted to the hospital.

At this time he was complaining again of constipation, distress in the stomach, gaseous eructations, and vomiting of food and mucus. I saw him on the day of admission and found a well nourished old man, with peripheral arteriosclerosis but otherwise in fair condition. An attempt to inflate his stomach by means of a divided Seidlitz powder was unsuccessful. The following day a stomach tube was passed and 115 ounces of water was put in. Of this only 48 ounces could be recovered. On April 11, 1905, I again saw the patient, and made the following note: No masses can be felt in the abdomen. With the patient sitting up, the percussion outline of the lower border of stomach tympany lies 13 cm. below the costal margin in the left mamillary line, 2 cm. below the umbilicus and reaches the right costal margin at a point 6 cm. to right of median line. Further to the right there is a tympany whose lower border cannot be sharply demarcated. By means of the stomach tube 98 ounces of water were introduced, and the lower border of the tympany was raised 2 cm. on the left and the area of tympany disappeared on the right. Sixty-seven ounces were removed, all that could be obtained.

¹ Ann. of Surg., 1906, xliii, 80, and Am. Jour. of Med. Sc., 1906, cxxxii, 1.

² Beiträge z. klin. Chir., 1905, xlv, 388.

³ Ann. of Surg., 1906, xliii, 870.

The lower border of tympany was now 17 cm. below costal margin on left, 6 cm. below the xiphoid and had disappeared beneath costal margin on right as previously described. The tympany on the right did not reappear. Inflation with air lowered the line of tympany 4½ cm. The patient was placed on his back, but no more fluid could be expressed. Inflation in this position showed lower border of stomach visible at umbilicus and extending up to costal margin on both sides well outside of mamillary lines.

From these clinical facts a probable diagnosis of hour-glass stomach or dilated duodenum and stomach with pyloric relaxation was made. Dr. Cunningham saw the patient, and determined to make a gastro-enterostomy. On April 21, 1905, this operation was done. At that time the stomach was seen to be enormously dilated, with no obstruction at the pylorus. The patient stood the operation poorly, and without completely regaining consciousness, died the next evening.

An autopsy was made several days later by Dr. Magrath, from whose protocol the following description of the gastro-intestinal tract is taken:

Gastro-intestinal tract: the mesentery of the transverse colon upon its posterior aspect shows an opening 5 cm. in diameter, through which there is union by sutures between the jejunum at a point 5 cm. from its origin, and the posterior wall of the stomach 2 cm. above the greater curvature and 8 cm. from the pylorus; the peritoneum adjoining is a little injected and roughened, otherwise natural. Stomach: length 31, cm. depth at cardia 16 cm.; upon section, it contains a small amount of brown to black fluid material; the mucous membrane is smooth, and shows extensive post-mortem changes; at a point as above noted, the posterior wall near the greater curvature shows an opening 1.5 x 3 cm. communicating with a segment of the jejunum; the pylorus is 9.5 cm. in circumference, and represented by a well-marked fold. The duodenum at its origin is 11.5 cm., at a point midway between the pylorus and the papilla 12 cm., at the beginning of the third portion 11 cm. in circumference; the mucous membrane shows post-mortem changes, but is otherwise negative; at a point 6 cm. from its origin the jejunum is united with the stomach as above noted, and upon section, at this point presents an oval opening communicating with the stomach; this portion of the intestine contains a small amount of dark-brown semi-fluid material; the ileum and colon, a moderate amount of pale brown, homogeneous material.

The anatomical diagnoses were:

Operation wound of the abdomen; chronic adhesive pericarditis; hypertrophy and dilatation of the heart; edema and congestion of the lungs; anthracosis of the lungs; gastro-jejunal anastomosis; dilatation of the stomach and duodenum; fatty infiltration of the liver; chronic nephritis; cyst of the kidney; enlargement of the prostate; hypertrophy and dilatation of the bladder; general arteriosclerosis.

The point which I wish to emphasize in this case is the possibility of determining by physical examination of the abdomen and the use of the stomach tube an anatomical condition in which there exist two pouches, so connected by a patulous opening that both can be filled with water, but the water can be siphoned back but from one. This condition would be present in both an hour-glass stomach and duodenal dilatation with pyloric relaxation. In the latter condition the second pouch would be well to the right side, as in the case here reported. This is only a single observation, but may serve in the hands of others as an aid in diagnosing such conditions.

ABDOMINAL TUMOR WEIGHING EIGHTY-THREE POUNDS.

BY F. W. JOHNSON, M.D. BOSTON.

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THERE was in this case a fibroid weighing 14½ pounds. The sac of the ovarian cystoma weighed 28½ pounds, and the fluid in the sac weighed 40 pounds.

The day on which the patient left the hospital she weighed 92½ pounds. During the month following the operation she certainly gained more than ten pounds.

A. L., single, 59 years of age, entered the hospital, Sept. 29, 1904. Menstruation began at 14 years of age and was regular up to eight years ago. During these eight years menstruation had been irregular, occurring both before and over the four weeks. Once went one year, but even up to the time of entering the hospital there has been at times a bloody discharge.

Twenty years ago she noticed enlargement of the abdomen. Dyspnea for the past year, easily tired, marked increase in size of abdomen. Has had a dry cough for the last six months.

Heart. — Regular, rapid. Area not made out.

Lungs. — Fine moist râles at bases behind. Diminished respiratory murmur over lower part of each lung.

Liver. — Upper border at nipple-line; sixth rib at axillary line; lower border not made out.

Abdomen. — Greatly distended; small umbilical hernia. Dull everywhere on percussion. Lower part of thorax bulging; intercostal spaces markedly retracted. Ensiform cartilage was pushed out almost at right angles to the body. There was marked edema of buttocks, thighs and legs.

For six months she had been practically bed-ridden. It was necessary to support the tumor to prevent its rolling off the table and dragging the patient with it. She nearly died before enough ether could be given so we could open the abdomen, tap the cyst and thus give her room to breathe.

Remembering Dr. J. C. Warren's advice, great care was taken not to empty the cyst too rapidly. Just as soon as the lungs had room to expand, the fluid was drawn off very slowly. A complete hysterectomy was done. She made a good recovery, and was discharged one month after operation.

Feb. 24, 1907. She weighs 160 pounds, and for a long time has done her own house work. She walks to and from the post-office which is one half mile from her home.

Medical Progress.

HYGIENE.

BY CHARLES HARRINGTON, M.D., BOSTON.

TYPHOID BACILLI IN WATER, FOOD, ETC.

How long typhoid bacilli will live in water has been the subject of much study, the results of which have been far from being in agreement. The character of the water, the nature and amount of the organic matter present, the number of bacteria of other kinds present and their nature, the temperature, the conditions as to light, the association of higher forms of vegetable life and various other factors all seem to be of more or less consequence. Important work reported by Wheeler¹ proves that under certain conditions not only can these organisms live in water but they