Pancreas.—There was a gangrenous area in the head of the organ, about the size of a filbert, from which it was evident the hæmorrhage had come; the whole gland was infiltrated with blood and the seat of marked rapid tissue changes; on the surface were numerous sandy grains consisting of calcium phosphate. There was no evidence of fat necrosis, nor of obstruction in the ducts.

This case is of great interest, both from a medico-legal and scientific point of view.

1. There was a more or less obscure history of a somewhat similar seizure occurring nine years ago.

2. The death was evidently syncopal; whether brought about reflexly by interference with visceral ganglia or the solar plexus, or due to the escape of pancreatic ferment in large quantities into the blood it is impossible to say.

3. The majority of these cases occur in males; out of Korte's series of 41 instances, only 4 were females.

4. The etiology is extremely obscure. In this case there were two facts which may have a bearing on it: (a) Marked atheroma, and (b) the peculiar deposit of calcium phosphate on the surface of the pancreas. Whether this is an instance of *post hoc* or *propter hoc* it is extremely difficult to say; its formation is well known to be associated with rapid nuclear disintegration, and its presence may be accounted for in that way. Personally, I am inclined to the *propter hoc* theory, as there were several very large granules near the broken-down portion of the organ, too large to be formed in this rapid manner, and also on account of the fact that the distribution of these grains of phosphates was not throughout the organ, but only superficially.

A CASE OF "CONGENITAL PYLORIC STENOSIS" SUCCESSFULLY TREATED WITHOUT OPERATION.

BY

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THE opportunities afforded of observing a case of so-called "congenital pyloric stenosis" from the very onset are surely uncommon. The subject of this paper is my own child, a little girl.

She was born on September 1st, 1908. Labour was natural. The child weighed at birth 7 lb., and was in every way normal. She was fed on the breast alone for three weeks, at the end of which time she began to be sick almost immediately after taking her feeds. Thinking modified cow's milk might suit her better, she was on September 23rd put on milk and barley water with sodium citrate (gr. j ad 3j of milk), as recommended by Poynton. For forty-eight hours there was no sickness to speak of, but then it returned, and every feed was vomited as soon as it was taken. Her weight at the end of one month was the same as at birth. Imagining the food to be still the cause of the trouble, we replaced the milk and barley water with Allenbury No. 1, and again for about forty-eight hours the vomiting was much relieved. On October 4th a further change in the diet was made, "bread jelly," as recommended by Cheadle, replacing the Allenbury No. 1. On October 5th no nourishment was retained at all, each feed being vomited practically immediately. On October 6th we attempted small feeds (3j) of peptonized milk and lime water, a certain number of which were retained. The bowels were constipated, and means had to be taken to get them to act. The nursing of the child was being carried out by the mother, a hospital nurse of great experience; this, of course, excluded any possibility of error in measuring out feeds or irregularity of time in giving

them, or any doubt as to the absolute cleanliness of all vessels used in connexion with the food. The vomiting was not accompanied by retching; the food was immediately, so to speak, pumped up and shot out, sometimes quite forcibly. The chronic vomiting, unassociated with any evidence of gastric disturbance and not relieved by careful nursing and changes of food, now suggested that pyloric stenosis might be the cause of the mischief. On October 6th a feed was given to the child when it was undressed, and we were able to see well-marked peristaltic movements in the epigastrium culminating in a vomit. This observation was confirmed on several subsequent occasions by my partner, Mr. R. Hingston, to whom I am deeply indebted for much help and encouragement during the trying conduct of this case. The child was now naturally losing weight and was very fretful night and day, constantly screaming out with colicky pain, which invariably followed if a feed were retained. The weight had fallen from 7 lb. to 6½ lb. My attention was now directed to an article by Dr. R. Hutchison¹ dealing with the subject of congenital pyloric stenosis, and this showed me that without doubt we had a case of this condition to deal with, the baby having all the classical signs and symptoms—namely:

1. Vomiting of a projectile nature coming on almost immediately a feed was taken down, with absence of any sign of gastric disturbance.
2. Loss of weight.
3. Constipation.
4. Visible peristaltic movements in the epigastrium, culminating in a vomit.
5. Relief of the symptoms for a period of a day or so by changing the food.

I sent Dr. Hutchison full details of the case, and he most kindly wrote advising me as to treatment; and I must here express my most grateful thanks to him for his generous advice and help, both then and on many subsequent occasions, whilst the case was under treatment, the successful result obtained being entirely due to the means which he suggested.

On October 23rd, the child being now 7 weeks old, and slowly but steadily losing ground, we began the treatment suggested by Dr. Hutchison, consisting of: (a) Daily washing out of the stomach; (b) small feeds (3jss at a time) of *peptogenized* milk and water, half and half; (c) Purgin (half a tablet of "Infant Purgin") at night to relieve the constipation. She was also given a small amount of Kepler malt extract and cod-liver oil daily.

The effect of washing out the stomach was little short of marvellous; the fretfulness disappeared at once, and only on one occasion during the time gastric lavage was carried out once daily (and this lasted from October 23rd, 1908, till March 24th, 1909, a period of five months) did the little patient show any signs of abdominal discomfort, and then she was immediately washed out, with the result that the discomfort was at once removed. The operation of washing out the stomach was most easily performed. A glass funnel and a soft rubber No. 12 catheter were used; the end of the catheter was dipped in glycerine and placed on the infant's tongue, when she began to swallow the tube, and so rendered the passing of it a very simple matter. The operation never made the child cry nor appear inconvenienced in any way.

The child's weight remained about 6½ lb. until the middle of January, 1909, when she was 4½ months old. She was a mere

skeleton, and the points of bone at the back of the iliac crests and the spines of the sacral vertebrae looked as if they might perforate the skin at any moment, and were only prevented from doing so by carefully changing her position from time to time, not allowing her to lie on the back or one side for too long; she moved her limbs very little, there being extremely little muscle to perform any movements with. In spite of her emaciation, which was extreme, she never looked cachectic, and always seemed happy and comfortable, thanks to the gastric lavage.

From November 26th, 1908, to January 20th, 1909, the abdo-

men was massaged twice daily with cod-liver oil, but this was not continued longer, as there was no evidence of benefit from its use. At the beginning of February, 1909, on the advice of Dr. Hutchison, we began giving raw meat juice to counteract any ill effects of the prolonged diet of peptogenized milk, and "Glaxo" was given for alternate feeds; also one feed of weak Benger's food was each day substituted for one of the peptogenized milk feeds. By the end of February, the child being now

Dotted line shows average weight at different ages.

6 months old, she had begun to gain in weight a little, and scaled 7 lb.—the weight she was when born. Virol was now given in place of the Kepler malt extract, and in the middle of March one feed a day of Savory and Moore's food was begun in the place of Benger's. By the end of March the child was gaining fairly steadily, as will be seen by the weight chart. The peptogenized milk was stopped, as was also the raw meat juice, and we ceased to wash out the stomach, the indication for the latter being that the wash-out no longer showed retained curds in the stomach. She was now put on a mixture of raw milk and barley water, with the necessary amount of sodium citrate.

The child was vaccinated on May 17th, being now 8½ months old; she was not upset at all by this, in fact the week following she showed her biggest gain, namely, 1 lb. She cut the two lower central incisors during the second week in June.

The volume of the feeds and the amount of the milk were gradually increased as the child's capacity for taking in got greater, and in due course one feed a day of Mellin's food and one of Chapman's wheat flour were added to the dietary. I should have stated that the Savory and Moore's food was stopped as soon as the child was able to take the milk and barley water mixture. At the commencement of July, being 10 months old, the patient weighed 14 lb.; she was small for her age, but fat and a capital colour; an extremely bright and intelligent child, and wonderfully happy and contented. The bowels were acting without any trouble, she was never sick, and there was nothing to suggest that the stomach was at all dilated. There is nothing further of special note to chronicle. The child now, in the middle of October, is 13½ months old, weighs 20 lb., has cut six teeth, and can stand when holding on to any object. Although she is, of course, behindhand for her age, she is apparently in robust health, and shows no signs of rickets or dilated stomach. The diet has naturally been suitably altered and augmented to bring it up to the requirements of her growth, though she cannot yet quite manage the food of the ordinary healthy infant of corresponding age.

This case presents one or two points of exceptional interest.

1. So far as I know, most, if not all, of the recorded instances of congenital pyloric stenosis have been in male children.

2. The case was under medical supervision from birth.

3. Improvement did not begin till the child was 6 months old, whereas the spasm usually passes off at an earlier date.

4. There were never any convulsions due to the absorption of toxic material from the stagnated contents of the stomach; this was directly due to the daily washing out of the stomach, which, begun early in the treatment of the case, prevented gastric dilatation taking place.

It is interesting to note in this connexion that in the case recorded by Dr. Harper in the *Lancet* of August 19th, 1905, where no washing out of the stomach was done, convulsions were a very frequent and most distressing complication.

5. Ever since the child was a week or two old she has been accustomed to spend as many hours a day as possible out in the open air in her perambulator, this even when the ground was deep in snow in the winter; she was always the better for being out, and was never kept in except for rain. She never suffered from cold, even when she was extremely emaciated.

6. Throughout her illness from the moment the gastric lavage was commenced the child slept on an average from eighteen to twenty hours a day, and doubtless this had much to do with maintaining her vitality, and so enabling her to weather the storm.

REFERENCE.

¹ *Clinical Journal*, September 9th, 1908.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

RECURRING APPENDICITIS: RIGHT OÖPHORITIS IN ASSOCIATION WITH MODIFIED GRAVES'S DISEASE.

DURING the last three months in the course of my practice I have come across three cases which, taken singly, might each be accounted for by coincidental existence of two diseases in one person, but taken collectively it is somewhat improbable that they can be explained in this way. I am unaware of any literature dealing with the point I am about to mention, and I should be glad to know if any other medical man has had a similar experience, or has entertained the idea of any causal relationship between the two. The two diseases mainly concerned are chronic or recurring appendicitis with involvement of

the right ovary, associated with a modified form of Graves's disease. The following is a brief account of the cases:

T. D., aged 23, member of the dramatic profession, single. In April of this year I first saw her on account of colicky pains of an "excruciating" character in the right iliac region associated with nausea, and a slight temperature with foul tongue and constipation. There was a history of two similar previous attacks. On examination, there was definite tenderness over the appendix, and the right rectus was resistant. With rest in bed and suitable treatment the attack subsided, and the patient refused or postponed operation. In June a similar attack occurred, and again in August. The right ovary is tender and somewhat large, and there is profuse leucorrhoea. I saw this patient again on September 1st, and then found a palpable thyroid gland, a definite fine tremor of the hands, and a pulse of 110—in other words, a modified form of Graves's disease. This patient is habitually constipated and has a foul tongue, unless freely treated with aperients.

M. J., lady governess and nurse, aged 25, single, first came to me in June, complaining of pain of a colicky nature referred to the umbilicus; had had attacks of pain at intervals for a year, profuse leucorrhoeal discharge, menorrhagia, and dysmenorrhoea for several months, constipation, and foul tongue. This patient also complained of acute depression and "tedium vitae." At this time there was nothing definite to go upon, but a month later she came to me feeling better as regards the depression, but complaining of the pain being still present at times, and a constant dull ache in the right ovarian region. I examined her, and found a definite lump in the appendix region, slight rigidity of the right rectus, and bimanually the right ovary seemed larger than the left, but of this I could not be certain. As the patient was leaving for home I wrote to her mother, and advised that the local doctor should be called in. This more especially as the patient then told me, what she had not before mentioned, that she had had a temperature for some weeks on and off, associated with the pain. This girl had, in addition, fine tremor of the hands, pulse 110 to 120, for one month, during which I had her under observation, and her thyroid was distinctly enlarged, she herself volunteering the statement that sometimes her neck seemed larger than at others.

R. S., hospital nurse, aged 23, single, first came to me twelve months ago with very marked tremor, pulse 120 to 130, enlarged thyroid gland, complained of feeling excessively tired during and after her hospital work. She was then doing special work, massage, etc., and was just going to commence full training at another London hospital. I advised her not to attempt it for twelve months, but to rest. For various reasons she could not rest completely, and obtained a post at a nursing home. Her symptoms did not respond to treatment of various kinds, but this I attributed to the well-known uncertainty of drug treatment in this condition, and the absence of sufficient rest. Six weeks ago she was travelling on the Continent with a patient, and was forced to come home owing to acute abdominal pain (generalized), with diarrhoea and passage of mucus and blood. She tells me that for months she had a temperature now and then of 99.6°, and had also had previous attacks of pain. I was called to her, and found her to be tender all along the whole course of the colon, but with no localized pain. The next day, however, her right rectus became rigid, and I decided to operate. On opening the abdomen, clear straw-coloured fluid presented in the wound. The appendix, which measured 3½ in., was found to be closely bound down to the colic wall along its whole length, with the exception of the last ½ in., but it was not in an acute inflammatory condition. I dissected it off and amputated it, and then looked for the more recent cause of the pain. The right ovary was enlarged and had a cyst on its outer end, which had burst and was obviously the source of the fluid found on incising the peritoneum. The left ovary being apparently healthy, I removed the right one, and, after swabbing up all the fluid within reach, closed the abdominal wound. The patient has made an uninterrupted recovery from the operation, and, what is to my mind by no means the least important point as bearing on this communication, her pulse has never since the operation been above 84—it is now 76—the tremor has almost disappeared, and the thyroid is less prominent, though still slightly enlarged.

These three cases, as I remarked above, seem to me collectively to point to a definite connexion between the two coexistent conditions. Whether they have a common causal factor, or whether one is causative of the other, I leave it to the future and the experience of others to decide, but that there is something more than coincidence in the coexistence of the two sets of symptoms in these three cases, I am convinced.

Of the first two cases, I very much regret that in one operation has been up to now refused, and in the other I have not yet any definite information, and therefore operative proof is not, so far, obtainable, but personally I am convinced that appendicitis was present. My own view is that the appendix trouble, either primarily or secondarily through the ovary, causes a sympathetic disturbance, which produces this modified Graves's disease.

I do not think that any one will quarrel with me if I say that the pathology of Graves's disease is still an open