diet of solid food, and was quite free from discomfort. After his return home he continued well for ten days; there was then a gradual return of the vomiting and afterwards of the pain. His condition became steadily worse, and he died on November 10th.

Post mortem only the abdominal cavity was opened, and the parts, as now shown, removed. It was found that the cancerous mass had increased greatly from the date of the operation. The induration almost involved the margin of the artificial opening, which, however, remained patent so as to admit the forefinger. The adhesion between stomach and jejunum was quite firm, and the outline of the omental graft could still be traced. The Senn's plates had altogether disappeared, but the silk threads which had secured the plates remained in position. They were blackened, and each, where it traversed the gastric or intestinal wall, was surrounded by a sloughy ring of tissue. This persistence of silk sutures when employed in fixing Senn's plates, and when, therefore, the threads lie partly in the cavity of stomach and intestine, and cannot remain aseptic, has been already repeatedly noted, and indicates a disadvantage and possible danger in their use. Mr. Jessett appears to have shown that catgut is sufficiently durable for the purpose.

In estimating the gain and loss by interference in this case, it is fair to note that the patient did not suffer at all from the operation. He was free from pain or discomfort from the first, and was very shortly taking as much food as he had previously been doing. The month's improvement and immunity from suffering which followed were undoubtedly the direct result of the operation. I fear it cannot be claimed that life was lengthened by it. The patient at the time of his admission certainly seemed good for at least two months. Neither probably did the operation in any way shorten life. The return of symptoms and the speedy fatal ending were apparently due to natural progress of the disease.

A CASE OF CÆSAREAN SECTION.

By H. St. CLAIR GRAY, M.D., F.F.P.S.,

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THE operation of Cæsaean section is one which has lately been much performed in Glasgow, especially by Dr. Murdoch Cameron. I have been present at all his cases, and have assisted him in quite a number, and have been astonished at the small amount of bleeding occurring at the operation. Never have I seen more hæmorrhage than what one expects at an ordinary confinement, and certainly never sufficient to warrant the application of an elastic ligature around the lower segment of the uterus. The operation in itself is simple, as the operator knows what to expect at each step, and can therefore prepare for it, which is a very different matter from operating on some obscure abdominal tumour, where adhesions and other complications may exist in any number.

On March 31st I was called in consultation by my assistant, Dr. Lindsay, to the case of Mrs. W., aged 27, in labour with her first child. She had been in labour for about twenty-four hours, with the membranes ruptured for over twelve. On examination I made out that the os was about three-fourths dilated, that the foetal head was free above the brim, and that the pelvis was flattened and generally contracted, the conjugate at the brim measuring $2\frac{1}{2}$ inches. The abdominal walls being thin, the foetal head was distinctly felt to be large and hard, and the foetal heart and movements were easily made out. The patient and her friends being Roman Catholics, I explained to them that I was unable to deliver the child alive, except by the operation of Cæsaean section, as to the dangers of which I informed them, and they at once requested me to perform it. According to I had her removed to a private hospital and operated at once.

The Operation.—The patient being well bathed in carbolic acid, and her bowels and bladder emptied, ether was administered by Dr. Brown Henderson, the patient taking it well. After the abdominal surface was well rubbed with turpentine and shaved, an incision, extending from about an inch above the pubes to a couple of inches beyond the umbilicus, was made right down to the uterus, which on being examined was found to be twisted on its own axis, with the left Fallopian tube almost immediately below the abdominal incision. This was rectified, and the uterus steadied by my assistant. Dr. Murdoch Cameron's straightened pessary was used to control the hæmorrhage, and acted admirably. A button-hole incision was made through the uterine walls, and it was then seen that the placenta was inserted anteriorly immediately below the uterine incision. On discovering this I at once increased in length the incision, and, passing my hand round the placenta, seized the child's head, and sweeping it out delivered. The uterus was immediately grasped, and the hæmorrhage controlled. After separating the child I peeled off the placenta and kneaded the uterus, until firm contraction took place. The

uterine wound was now closed with chromic acid catgut stitches, and the abdominal cavity carefully sponged out and closed with silk ligatures. Iodoform was applied to the wound, with a dressing of perchloride of mercury, and a firm flannel bandage over all. The operation lasted exactly twenty-eight minutes.

Progress of the Case.—The patient slept well for about six hours during the first night, her temperature being 101° . For the following four days all went well, the patient being and feeling extremely well, but on the fifth day she took an epileptic fit, which on inquiry I found she had been subject to. She never properly recovered consciousness, and, taking another, died at midnight.

Post-mortem Examination.—On opening the abdomen the uterine wound was found to be closed, no sign whatever of any inflammatory action being present. The pelvis was removed, and the former measurements found to be correct. The child was a large one, weighing $9\frac{1}{2}$ lbs., with a large, hard head. At present, six months after the operation, it is alive and well.

My reason for publishing this case, although unsuccessful, is that I consider all operators should publish their failures as well as their successes, so that a true estimate, for or against any given operation, may be arrived at. In my own opinion, it is a much more simple matter to perform a Cæsaean section than to perform a craniotomy on a large child through a small pelvis, and that the danger of the one operation to the mother is about the same as the other operation; and in the one case you are likely to have a living child, in the other you must have a mutilated dead one.

THE ACTION OF SOME OF THE RECENT HYPNOTICS ON PANCREATIC DIGESTION.

By JOHN GORDON, M.D.,

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THE observations regarding some features of gastric disturbances that followed the exhibition of a few of the recently-introduced hypnotics, and which initiated the series of experiments which were published in the *BRITISH MEDICAL JOURNAL* of July 15th, 1891, induced me to continue further experiments on their influence on pancreatic digestion.

No attempt is made in this contribution to study more than one side of the question of pancreatic digestion, namely, that by which this digestive fluid acts on starch, converting it into maltose and dextrin. The actions which take place on fats and proteids are not entered into in the meantime. Nor does this paper propose to consider at all the action of these hypnotics on the secretory, muscular, or nervous mechanism, which no doubt are potent factors in all interferences that drugs make on the digestive processes.

METHOD OF EXPERIMENT.

The methods employed to ascertain the influence of the various hypnotics on the pancreatic digestion of starch were to prepare a standard solution of pancreatic juice, the strength of which had been observed by its action on a mucilage of starch of definite strength. The result of a large number of observations showed that the pancreatic solution employed was able to convert the whole of the starch into maltose and dextrin in ten minutes. The temperature of the fluids during the experiments was 98.6° F. A weak solution of iodine was used as the colorimetric indicator, to show when digestion was complete by the discharge of the blue colour. The strength of the mucilage of starch was 1 gramme in 100 c.c. of water. Six glass beakers were taken. No. 1 formed the control beaker, and contained 80 c.c. mucilage of starch and 0.75 c.c. of pancreatic solution. The other five beakers contained, in addition to the above, regulated quantities of the several hypnotics employed in the specific experiment.

The pancreatic solution which was used was carefully made for me by Mr. James Clark, pharmaceutical chemist, Aberdeen, and was fixed and reliable in its strength and action.

Numerous series of experiments were made with the various substances in weak and strong solutions, and, to insure brevity, the results are given in as condensed a form as possible.

SULPHONAL.

Five beakers contained, in addition to the ingredients in the control beaker, 0.75 c.c., 1.5 c.c., 3 c.c., 5 c.c., and 7 c.c. of a saturated solution of sulphonol. The result of numerous experiments indicated that the smallest quantities of the sulphonol, viz., 0.75 and 1.5 c.c., most delayed the pancreatic digestion, viz., three to five minutes. The stronger solutions had no appreciable effect.

PARALDEHYDE.

When to the mucilage of starch and the pancreatic solution

paraldehyde was added in quantities of 5, 7.5, 10, 12.5, and 15 minims, the delay in the discharge of the blue colour was complete, no change taking place in twenty-four hours. Four minims delayed the action for thirty minutes, and three minims for twenty minutes. If weak solutions were employed, viz., 0.5, 1, 1.5, 2, and 2.5 c.c. of a 1 per cent. solution, there was a delay in the discharge of the blue colour of three to five minutes. With solutions twice the above strength, the delay in the digestion was five to eight minutes.

URETHANE.

The result of a number of experiments with a solution of urethane proved that with the weakest of the solutions employed there was a short delay in the discharge of the blue colour. Thus, when 0.75, 1.3, 2.6, 3.9, and 7.8 c.c. of a solution of urethane were added to the contents of the control beaker, it was noticed that the 0.75 beaker delayed the discharge of colour two minutes, and the 1.3 beaker one minute.

CHLORALAMIDE.

Chloralamide was employed in the form of a saturated solution in strengths of 0.75, 1.5, 3, 4, 8 c.c., which were added to the contents of the control beaker. The result of these experiments was that chloralamide had no retarding power in the pancreatic digestion of starch, the control and the other solutions yielding the liberation of the blue colour at the same moment.

ACETANILIDE (ANTIFEBRIN : PHENYLACETAMIDE).

The conclusion drawn from a numerous series of experiments with acetanilide (1-200) was that its action on pancreatic digestion, whether the solution employed was weak, 0.3 c.c., or in strengths up to 16 c.c. of a 1-200 solution, was negative.

ANTIPYRIN (PHENAZONE : DIMETHYLPHENYLPIRAZOLON).

A 4 per cent of antipyrin was employed in quantities which varied from 0.3 c.c. of this solution to 6 c.c., and no appreciable result followed the introduction of the substance.

CONCLUSIONS.

The conclusions formed from these experiments were:—

(1) That chloralamide, antifebrin, and antipyrin did not interfere, either in strong or weak solution, with the decomposition of starch into maltose and dextrin by pancreatic solution.

(2) That sulphonal and urethane, when the solutions were weak, retarded slightly (two minutes) the decomposition of starch into maltose and dextrin by pancreatic solution, and that the stronger solutions of these substances did not.

(3) That paraldehyde in weak solutions had a distinctly retarding influence of four to eight minutes; and that when five minims were added to 60 c.c. of mucilage of starch, retardation was complete in presence of 0.75 c.c. of pancreatic solution.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF TRAUMATIC ANGIOMA OF THUMB.

THE following case may prove of interest on account of the rarity of angioma of the hand, and from the fact that the growth followed an injury.

A. R., a maid servant, aged 20, was sent to me in December, 1892. Two and a-half years ago her left thumb was squeezed between a lift and the wall. There was some bruising, and a superficial wound, but very little pain, and it quickly got quite well. About four months after the accident she noticed a slight swelling on the dorsum of the left thumb, which has gradually increased in size. Shortly after its first appearance some hard knots were felt in its substance. On the dorsum of the proximal phalanx and of the metatarsal bone of the left thumb I found a soft swelling the size of a walnut. A great part disappeared on pressure, but returned to its former size when the pressure was relaxed. Some small hard bodies could

be felt in its substance. The skin was thin, but not adherent. The patient complained of neuralgic pains.

On December 16th the tumour was removed, under ether, by a T-shaped incision; the extensor tendons were exposed. The resulting wound healed by first intention. Examination of the tumour showed that it consisted of a plexiform arrangement of thin walled venous channels containing several phleboliths, with some fatty and connective tissue; four veins entered into it.

The patient was last seen in March, 1893; there was then no interference in the movement of the thumb, and no signs of recurrence. These cavernous angiomas are rare, but have been observed occasionally in young adults after injury.

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DIPHTHERIA AND IMMUNITY.

IN *Fagge's Medicine* occurs the following passage: "Doubts have been expressed as to whether the fact that a person has had diphtheria implies subsequent immunity from the disease." The following makes a further addition to the few cases which have been recorded in which one attack has failed to confer immunity against a subsequent one.

J. G., aged 5 years, was first seen on January 30th, 1893. She complained of sore throat. On January 31st diphtheria was fully developed, patches of membrane being found on the tonsils, soft palate, and pharynx. The urine was found to have a porter-like appearance, and the quantity passed was very scanty. She was last seen on February 24th, when the throat troubles, the nephritis, and severe pains in the limbs had entirely disappeared and she was playing about with other children. Five children in the same house were attacked after this.

On March 9th—seven weeks after she was first seen—J. G. began to "fail in her appetite." On March 20th there was "tightness" in the chest; on March 21st, when I saw her, she had unmistakable diphtheritic membrane on the tonsils and soft palate. The larynx became quickly involved, and the child died on March 23rd, the parents declining to permit tracheotomy. The urine on March 23rd contained one-half albumen.

The second attack was evidently of a much severer type than the first, thus agreeing with similar cases already recorded.

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SEVERE SHOCK TREATED BY INFUSION OF NORMAL SALINE SOLUTION.

IN connection with the case mentioned by Mr. R. W. Parker in the *BRITISH MEDICAL JOURNAL* of April 1st, p. 697, I may be permitted to make the following communication. I tried the method in the case of a baby. The case was reported to the Medical Society of the Canton of Grisons, at Tarasp-baths, on September 8th, 1889, and afterwards published in the *Correspondenz-Blatt für Schweizer Aerzte*. The child, aged 8 days, through great loss of blood from the umbilical cord (hæmophilia congenitalis) became extremely collapsed. First, I injected about one ounce of the saline solution into the cellular tissue, but the little patient was in such a severe collapse that, in spite of rubbing the swelling which arose, no absorption took place. Immediately another injection of about four ounces of the solution of 104° F. was made into the abdominal cavity. Soon after the child gave signs of life, and with her first cries the fluid which had been injected into the cellular tissue was also absorbed, and the infant recovered. This case proves that the peritoneum is able to absorb even when the cellular tissue has already lost that power.

OSCAR BERNHARD, M.D.

Samaden and Pontresina (Summer).

HYDROCELE OF THE TUNICA VAGINALIS REACHING WITHIN THE ABDOMEN.¹

THIS was a case of infantile hydrocele in an adult, admitted into the Jamsetjee Jejeebhoy Hospital in September, 1892. The funicular process was obliterated only at the internal ring by an adhesion so slight that it yielded to the pressure of the

Read at a meeting of the Bombay Branch.