Serial No.	Name.	Sex.	Age.	Eye.	Duration of disease.	Degree of staphyloma.	Date of operation.	Result.	REMARKS.
1	Bakshi ...	F.	55	R.	12 mos.	Very large	13-5-13	Immediate result good; later bad.	Recurrence; secondary operation on 13-8-13, but result unsatisfactory.
2	Sohan ...	M.	25	L.	14 ,,	Large ...	14-6-13	Good. Curvature of eye restored to nearly normal.	Lost sight of.
3	Mohan ...	M.	40	R.	2 ,,	Medium ...	4-7-13	Ditto ...	Improvement maintained.
4	Shahedan	F.	25	R.	18 ,,	Ditto eccentric.	29-7-13	Ditto ...	Improvement maintained. Vision improved.
5	Lal Das	M.	25	R.	6 ,,	Conical cornea.	29-7-13	Good. Curvature of eye appears quite normal.	Ditto.
6	Niader ...	M.	22	R.	12 ,,	Ditto	15-8-13	Ditto ...	Ditto.
7	Niadri ...	F.	22	R.	2 yrs.	Very large	15-8-13	Bad ...	Lens capsule ruptured; lens matter washed out with Mckeown's irrigator. Trephine hole blocked.
8	Imrat ...	M.	45	R.	2 mos.	Medium ...	19-8-13	Good. Curvature of eye appears quite normal.	Improvement maintained.
9	Bhutan...	F.	23	L.	5 yrs.	Conical cornea.	13-9-13	Bad ...	Filtration effected, but curve of cornea not reduced. She had high myopia.
10	Umian ...	F.	25	L.	2 mos.	Medium ..	16-9-13	Good. Curvature of eye appears quite normal.	Improvement maintained.
11	Vahidan	F.	25	R.	4 yrs.	Ditto ...	18-10-13	Good. Curvature of eye restored to nearly normal.	Improvement maintained. Vision improved.
12	... ...	...	...	L.	4 ,,	Very large	20-10-13	Fair ...	A secondary trephining was done below on 28-10-13 which further reduced the staphyloma so that the curvature of the eye appeared quite normal. Improvement maintained.
13	Nanhua..	M.	10	R.	2 ,,	Ditto ...	31-10-13	Bad ...	The suspensory ligament had given way and the lens blocked the trephine hole.
14	Kunja ...	M.	35	L.	3 ,,	Medium ...	3-11-13	Good. Curvature of eye restored to nearly normal.	Lost sight of.
15	Jhabia ...	F.	32	L.	12 mos.	Ditto ...	11-11-13	Good. Curvature of eye appears quite normal.	Improvement maintained.
16	Nihal ...	M.	35	R.	6 ,,	Ditto ...	15-11-13	Good. Curvature of eye restored to nearly normal.	Improvement maintained. Vision improved.
17	Subhan...	M.	35	L.	10 yrs.	Ditto ...	19-11-13	Ditto ...	Ditto.

ABDOMINAL SURPRISES.

By A. NEVE, F.R.C.S.E.

THE diagnosis of abdominal conditions is beset with many stumbling blocks to the unwary. The surgeon calls to his help the physician, and the chemical analyst: the blood is examined, blood counts are made, all the secretions are tested, a skiagram is taken, perhaps combined with cystoscopy and a ureteral catheter. Yet with all these varied methods of investigation the clinician has no easy task in sifting the evidence, in weighing the value of the patient's statement as to his or her symptoms; and deciding upon the prospect of relief afforded by an operation.

How often are the results of the most careful palpation doubtful, and the surgeon longs for the assistance of sight. It is indeed now possible by the aid of bismuth meals, to see a good deal. Within the last fortnight I have confirmed by operation the diagnosis of a much displaced hour-glass stomach, made with X-rays and fluorescent screen. During the last year I have thus seen very many internal organs, before using the knife; in one case we saw the right ureter with calculi strung out from the kidney to the bladder;

and I have watched the passage of a dangerously large iron nail through the danger zones, the pylorus and the ileo-cæcal valve.

But still there are many conditions in which all the resources of the diagnostician may be employed and yet the operation is at its beginning an exploration. It is some of these cases which, when duly pondered upon, make one realise that the abdomen is full of surprises. I collect a few such from my own experience.

(1) P.......female, Kashmiri Mohamedan, rather emaciated, pale, complaining of pain and abdominal swelling for the last year. The lower half of the abdomen was swollen and hard but softened in patches where fluctuation could be felt. The upper line of hardness was irregular. An abscess was diagnosed of pelvic origin, and an incision made from which pus escaped. Exploring with my finger I came upon a piece of bone; and so enlarged my incision, and found the macerated skull of a fœtus, a lithopædion, with its limbs buried in abscesses amid the bowels. In extracting it I opened a bladder diverticulum which was much drawn upward, and had difficulty in peeling it off the bowel which was torn at one place. Fæces passed once or twice by the wounds, but there was no bladder trouble, and she made an uneventful recovery.

The history of a pregnancy about 4 years previously seemed established, and of trouble about the sixth month when the child, an extra-uterine fætation, died; but in spite of discomfort and failing health, it was not till the abscess formed that she sought our assistance, and got relief.*

(2) Another case a year later recalled this and led to an erroneous diagnosis. A female under thirty was brought to the Mission Hospital with a swelling in the abdomen which was painful. Pregnancy could not be definitely excluded from consideration; but the uterus was certainly not involved in the tumours which could be felt.

There were many somewhat movable masses on either side of the umbilicus, and on careful palpation these seemed to correspond to a possible fætal head, and small trunk and thigh, also foot.

Laparotomy revealed remarkably diffused sarcomata, of the omentum and mesentery. Their size and distribution threw no discredit on the ingenious diagnosis. Unfortunately the connections with the bowel and mesentery rendered any attempt at excision quite out of the question.

Most of us who have had long experience will recall interesting puzzles in the way of abdominal tumours. It is so easy to mark out on a normal abdomen the various regions, the spleen, liver, kidney, stomach, and so on; but with increased experience we find it difficult to say dogmatically in which of these regions a kidney, an ovarian tumour, a stomach may not be found. The following case is one in which the X-rays would have saved a mistake.

(3) A girl of 14 complained of dyspeptic symptoms and of a large tumour in the lower half of the abdomen. I ordered the stomach to be washed out, as the gastric symptoms were those of dilatation. Unfortunately this was left to an assistant who subsequently brought a few ounces of acid fluid and some half digested rice grains, which were all that he could wash out. I found the swelling still tender, tense and large, so gave order for preparation for a laparotomy next day: expecting to find an ovarian cyst with a dilated stomach. The incision revealed a mass the size of a large football occupying the lower two-thirds of the abdomen, and firmly impacted in the pelvis. I dislodged it with my hand, and puzzled by the relations made a puncture into the "cyst." Rice gushed out, nearly a gallon of it. It must have been the accumulations of a fortnight or more! We washed the part, closed the puncture in the stomach, and rapidly performed a posterior gastro-enterostomy. The girl made a splendid recovery. After the first two days the stomach could be felt above the umbilical level. She began at once to eat ground-rice and milk, digested well and day by day got hungrier. In ten days she was eating meat, vegetables, bread, and rice. The line of the wound healed by first intention except half an inch, at the bottom, but that did not discharge, and in a few more days was dry. A month later the stomach could scarcely be felt.

4. In this connection I may mention another very displaced stomach which could scarcely have been diagnosed beforehand. It was a lad with hepatic ascites, and a large spleen. I inserted a trocar and canula at the usual place, midway between the pubis and umbilicus. No fluid came, so I cleared the canula with a stylet and noticed a whitish granular clot on it. This was sent to the laboratory at once to be tested, while I partially withdrew the canula, then changed its direction downwards and ascitic fluid came without bile. So the trocar had punctured a dilated stomach pressed against the parietes by ascitic fluid.

Next day under local analgesia I opened the peritoneum and explored. The ascitic fluid which had collected was not turbid, the much dilated stomach was immediately under my finger, and showed no trace of leakage. The enlarged spleen could also be felt near the wound. I inserted a hollow silver stud to drain the peritoneal cavity into the fascia outside and stitched the original incision.

The operation appeared to cause no pain, and the lad improved a little, but it was evident that the stud was not keeping up drainage, for the ascitic fluid began to collect after a few days.

* Compare a case by Lt.-Col. Newman, *I. M. G.*, 1913, p. 474.

He was allowed to go home with instructions to return later for tapping. But in view of the general organic disease and anæmia it seemed likely that he would not live long.

An instance of a condition not possible to diagnose before opening the abdomen was the following:—

5. An English lady was sent to me from the United Provinces, by a doctor who recommended an operation for prolapsus uteri. The prolapse was not considerable: and I invited the opinion of an experienced lady doctor. I performed hystero-pexy a day or two later, and through the abdominal incision I found that the chief factor in the prolapse was a parovarian cyst with very lax walls; though as large as a cocoanut it was half empty, and no bi-manual or other examination short of laparotomy would have detected it. A tapping sufficed to cure it, a utero-suspension was done and within three months my patient was playing tennis. Two years later she had a child.

6. With reference to the doubtful diagnosis, I would mention just one more case, a woman aged 30 with a large tender tumour, the size of a child's head, occupying the right side of the abdomen. It was rather freely moveable; above a narrow line of resonance seemed to separate it from the liver. There were no special kidney symptoms, but a nephroma was thought of. The abdomen was opened by Dr. Rawlence who made a four-inch incision in the right semi-lunar line. The tumour when exposed seemed rather solidly malted together with the bowels, and appeared like a sarcoma of the mesentery. An incision was made into it, and at some depth hydatid fluid was found; and the whole cyst easily enucleated. The wound healed aseptically, but for some days her condition was doubtful, as she vomited much. This was apparently due to large numbers of lumbricoid worms, after these were cleared out she made a rapid recovery.

The surgeon and physician between them aided by the laboratory and X-rays may expect to clear up the diagnosis of nineteen out of twenty abdominal cases; but the twentieth will remain a puzzle till an incision is made; and he who makes it is like a sailor setting out to circumnavigate an unchartered archipelago full of unknown reefs and shoals. He has to be prepared to face formidable obstacles, such as adhesions of bowels, or misplacement of organs, and to deal with sudden almost overwhelming danger, as when a rush of hæmorrhage comes from a deep torn pelvic vein; with nerves stimulated and thrilled by the fascination of exploration, yet steadied by experience, he has to be ready at a moment's notice to form the judgment upon which a life may depend. Shall he only drain, or is a short circuit to be performed; is a portion of bowel or an organ to be excised? This it is which makes surgery a profession and an art which combines the scholarly scientific spirit of the laboratory with the courage of the battle-field: and in no branch of surgery is this so emphasized as in these surgical surprises of the abdomen.

A Mirror of Hospital Practice.

A NEW OPERATION FOR THE CURE OF VESICO-VAGINAL FISTULA.

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A LARGE number of operations have already been devised for the cure of vesico-vaginal fistula, and my apology for adding yet another to the long list is that it is an efficient one and if carried out correctly is certain to effect a cure.

Unless one takes the trouble to enquire into the lot of those afflicted with this trying complaint, one can form but little idea of the miserable life they lead. The average native woman so afflicted, is ostracised and driven forth from her husband, home and relations, until finally, she becomes an outcast somewhat lower than the pariah. It is this fact that perhaps explains why there is no class of case that comes more readily to hospital seeking a cure and none that shows more gratitude when cured.

Under the circumstances, any attempts to find new methods of operation to cure the complaint are not waste of time or thought.

The claim I make above, that the operation is efficient and sure, is perhaps somewhat premature as it is based on only four operations, but the method itself was only arrived at after a large number of dummy operations, performed on a soft, plastic, wax model of the vagina, uterus and bladder.

The four operations so far done by the new method have all been successful and they comprise no less than four different types of vesico-vaginal fistula. Three of them had been previously operated on before by other operators without securing closure of the fistulæ. One of them opened into the cervix uteri, one involved the urethra, one opened just below the cervix uteri and lay in the midst of thick, irregular scar tissue, the vaginal cervix having entirely sloughed away. The fourth was a simple case opening into the vagina midway between the cervix and the urethra.

From the above facts, it will be seen that the test of the operation has been a fair one and the signal success with which it has met, makes good its claim of efficiency.