DR. WM. SEAMAN BAINBRIDGE: CHRONIC INTESTINAL STASIS.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

Remarks ON CHRONIC INTESTINAL STASIS

WITH REFERENCE TO CONDITIONS FOUND AT
OPERATION AND THE MORTALITY.

MADE AFTER THE READING OF THE PREVIOUS PAPER,
(With Special Plate.)

BY
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To Sir Arbuthnot Lane we are greatly indebted, for he has given to us a very clear view of the essential facts concerning stasis. He has evolved a most plausible theory as to its cause, and has pictured the far-reaching effects.

The cases he has presented are most convincing, especially so when we realize that they are not a small group of exceptions. We have seen seventeen patients to-day, many of them former human derelicts, now made over into useful and happy people.

During the past six years I have made five trips to England, and each time have studied the subject of chronic intestinal stasis. Every facility has been freely granted by Sir Arbuthnot for this work. Year after year I have seen his patients before operation, at the time of surgical treatment, witnessed his masterly technique, noted the history of the convalescent period, talked with staff and nurses and patients, and have seen a large number of the cases after an interval of many months.

Several times in the history of our profession Sir Arbuthnot Lane has blazed the trail into new fields, introducing radical methods of treatment, some of which have already become established as regular routine in surgical practice.

To aid this surgeon has come Dr. Jordan with his wonderful skill in x-ray diagnosis. Personally I have had many cases studied by very able men, but as yet we in America have not been able to equal his work. We are coming on, but Dr. Jordan is, I believe, to-day leading the way along this line.

With these two leaders here in London, with their work open to all, what can I add? However, a few facts from my personal experience may be of interest.

Intestinal stasis deserves our most serious consideration, and among the many questions which have naturally arisen in discussions of this subject, none is more important than the question of mortality.

STATISTICAL STUDY.

I determined to investigate the statistics for myself, and have carefully collected the following, taking all cases operated upon by Sir Arbuthnot Lane from Martha Ward at Guy's Hospital from May, 1909, to October, 1913.

OPERATIONS.				
Short-circuits	...	...	...	54
Removal of colon	...	...	...	52
Out of these—				
2 cases of short-circuit were done for rheumatoid arthritis.				
1 for trigeminal neuralgia.				
1 for tuberculous hip.				
3 short-circuit cases returned with a diverticulum.				
3 cases of removal of the colon were done on patients suffering from exophthalmic goitre.				
4 from rheumatoid arthritis.				
After operations for removal of colon 5 cases returned suffering from adhesions and had further operations.				
After short-circuit operation 8 patients returned and had removal of the colon.				

MORTALITY.

1909. (i) A patient, aged 48, died after removal of colon ten days after the operation, from sepsis.
1909. (ii) A patient, aged 68, died of shock after removal of large intestine for advanced carcinoma of the caecum.
1910. (iii) A patient, aged 24, died of sepsis after removal of colon, ten days after operation.
1910. (iv) A child, aged 7, with advanced hip-joint disease, died of peritonitis three days after a short-circuit operation had been performed. Condition very bad.
1910. (v) A patient, aged 36, died in the theatre while a short-circuit operation was being done.
1911. No death.
1912. (vi) A patient, aged 20, who had a colectomy done in 1909 and did splendidly until December, 1911. In January, 1912, she returned with pain and vomiting; she was operated upon and found to be pregnant. Persistent vomiting for six days after operation, accompanied by acute pain. She aborted eight days after the operation, and died of general peritonitis the next day.
1912. (vii) A patient, aged 40, had removal of colon for advanced malignant growth; was almost moribund on admission; died a week after the operation, of exhaustion.
1913. (viii) A woman, aged 43, had removal of colon for rheumatoid arthritis; did splendidly; joints and muscles improved, and pain very much less; died of a pulmonary embolism ten days after operation.

To make the investigation a very searching one all deaths, from whatever causes, occurring in this ward after short-circuiting or colectomy are included. This is obviously unfair when considering the mortality of stasis. We must exclude at least the two malignant cases—the moribund child and the case of abortion with sepsis. Further, it must be noted that successful partial excisions of the colon for growths are not included in our total list of cases. This leaves 54 cases of short-circuit, 52 of removal of the colon—106 in all. Four deaths—two from sepsis, one on the table, and one ten days after operation from pulmonary embolism. Thus the exaggerated statements of great mortality are not borne out.

CONDITIONS FOUND AT OPERATING.

There are some who are very sceptical as to the conditions found at the time of operation. In order to meet this and establish the facts, it has been my custom in my own practice often to have an artist present as well as a stenographer at the time of operation to record exactly the conditions found.

In order to have such evidence of record as true as possible, I selected an artist who knew nothing but normal conditions. The artist was directed to picture what she saw that differed from normality, with enough of the normal in the neighbourhood to make it clear as to what part was being represented. The stenographer took down a description of the operation at the time. Later, the finished picture on the one hand and the stenographer's description of the operation on the other, form a very important part of the records of the individual case.

In some of the pictures, a selection from which is published to illustrate this paper, clear evidence will be seen that the picture portrays the exact condition of the patient lying on the table, and not the condition which would be present when the patient is occupying a perpendicular position. This goes a long way to prove the honesty of the drawings.

To sum up, judging from the experience in Martha Ward at Guy's Hospital and in my own cases in New York, the mortality in operations for cases of intestinal

DESCRIPTION OF SPECIAL PLATE.

Fig. 1.—No. 14. A, Lane's band. B, Four-inch appendix adherent for 3 in. from tip to outer side of caput coli. C, Caecum mobile.

Fig. 2.—No. 16. A, Adhesions around the pylorus to gall bladder and liver. B, Pylorus angulated and narrowed. C, Kinking at duodeno-jejunal junction. D, Duodenum dilated and jejunum collapsed.

Fig. 3.—No. 22. A, Lane's band. B, Dilatation of small intestine proximal to site of ileal kink. C, Jackson's membrane.

Fig. 4.—No. 26. A, Lane's band. B, Mobile caecum. C, Jackson's membrane.

Fig. 5.—No. 30. Ulcer of stomach. A, Dilated duodenum. Angulated duodeno-jejunal junction. B, Lane's kink. C, Prolapsed transverse colon. D, Jackson's membrane. E, Gastric dilatation.

Fig. 6.—No. 43. Ulcer of stomach. A, Dilated stomach extending below the umbilicus, due to cicatrized ulcer. B, Dilated duodenum. C, Duodeno-jejunal kink. D, Bands between gall bladder and pylorus.

[In the captions of the pictures the names in common use for various bands have been employed. It should be understood that these are not looked upon by the writer as constituting in any way separate entities.]

stasis is astonishingly low. There is very little, if any, shock with the present technique; the much feared excessive thirst and persistent diarrhoea have not been borne out in our experience.

THE VISCERAL COMPLICATIONS MET WITH IN HYSTERECTOMY FOR FIBROIDS AND THE BEST METHODS OF DEALING WITH THEM.

BEING THE OPENING PAPER OF A DISCUSSION AT THE
MEDICAL SOCIETY, LONDON.

By SIR JOHN BLAND-SUTTON, F.R.C.S.,
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TWENTY years ago abdominal hysterectomy for fibroids was performed by clumsy methods and attended by a high mortality. In the Middlesex Hospital, during 1892, the uterus was removed on account of fibroids three times; two of the patients died as a result of the operation, but in 1912 there were 71 abdominal hysterectomies for fibroids in the same hospital, and all the women recovered. A marvellous improvement in twenty years. To-day, hysterectomy for fibroids is a common operation, with a mortality varying from 1 to 5 per cent. in the hospitals of London, general and special.

I have chosen 1892 for comparison with 1912 because it was the year in which Baer, of Philadelphia, introduced the method now known as subtotal hysterectomy, and inaugurated a new era in the surgery of the uterus.

The technique of the operation varies very little with different surgeons, and I believe that the small mortality attending this operation can be further reduced. During the last ten years discussion has mainly centred around the subtotal and the total operation. I do not propose to discuss technique, but I believe some valuable information can be obtained by a consideration of the visceral complications associated with fibroids. So many of these tumours have been removed that there are surgeons who can count their hysterectomies in hundreds, and I believe that some useful facts can be collected if they would be willing to relate their experience in regard to the effects of fibroids on the circulatory system, the thyroid gland, the renal organs, and especially in relation to diabetes. These are conditions on the borderland of medicine and surgery. It will also be interesting to learn how surgeons deal with certain visceral lesions which occasionally complicate fibroids, such as cancer of the colon, injury of the ureters, and gall stones.

CARDIAC LESIONS.

Fibroids are often present in women suffering from chronic cardiac disease, and it has been maintained by several writers that uterine fibroids cause degenerative change in the muscular tissue of the heart. It is true that many patients with fibroids have valvular lesions, a consequence of rheumatic fever, and in many women who have been reduced to a condition of profound anaemia by a submucous fibroid the heart yields a loud murmur on auscultation. I have had careful observations made on the cardiac condition of women with fibroids, and there is nothing which can be described as peculiar to the influence of these tumours. It has been my practice for many years, in selecting house-surgeons, to choose officers who have filled a resident appointment under a physician. All patients with fibroids, before being set down for operation, are the subjects of a careful medical examination.

On a dozen occasions I have removed the uterus containing large fibroids, although the heart has furnished murmurs, clearly due to valvular lesions, when an examination by a competent physician has shown that compensation has been satisfactory and that an operation would not be attended with unusual risks. Indeed, in some instances the removal of a uterus big with fibroids from a patient with valvular disease will relieve an embarrassed heart. For example, a stout woman, aged 50, with a large ovarian cyst and a fibroid the size of a football, suffered from dyspnoea, due to a dilated heart and myocarditis. The anaesthetist would not risk a general anaesthetic, but we

felt that if the tumours could be removed great relief would follow. The tumours were removed under an intradural injection of novocain. Convalescence was rapid, the cardiac symptoms disappeared, and the patient soon became robust, and has since led an active and useful life.

The heart is a very adaptable organ, and it is comprehensible, when we consider the size and vascularity of some fibroids, that the extra amount of work thrown upon it would lead to its enlargement. I believe that some cases of sudden death which occur within a few days of hysterectomy for fibroids happen in women the subjects of chronic, but unrecognized, disease of the heart. Some of these deaths are attributed to pulmonary embolism, but no death should be so assigned unless a *post-mortem* examination has been made and the embolus found.

On this occasion I do not propose to discuss fatal post-operative pulmonary embolism, except to remind surgeons that recorded statistics indicate its occurrence in 1 per cent. of women who submit to abdominal hysterectomy for fibroids. I have recently published evidence which indicates in no uncertain way that it is often due to the exuberant use of buried sutures for closing the incision in the abdominal wall.

THE THYROID GLAND.

From time immemorial it has been known that some mysterious relationship exists between the thyroid gland and the genital organs. No explanation has been found. The brilliant suggestion of Gaskell, in his fascinating account of *The Origin of Vertebrates*, that the mammalian thyroid is the representative of the uterine glands of a palaeostracan ancestor (of which the scorpion is a type), stimulates but fails to satisfy. To-day the matter is further complicated by the discovery of a relation between the hypophysis and the genital glands on evidence at which even the most practical surgeon cannot scoff.

On three occasions I have removed a uterus, containing fibroids, from women who at the time of the operation possessed goitres. I have been surprised on seeing the patients six months after the hysterectomy to notice marked diminution in the size of the goitrous thyroids.

In 1908 a spinster, aged 44, suffered from menorrhagia due to multiple fibroids, but she had exophthalmic goitre. It occurred to me that as the removal of the uterus for fibroids causes a goitre to shrink, such a sequel might be expected if hysterectomy was performed on this patient. After careful consideration I removed the uterus with the ovaries and tubes by the subtotal method. The operation was performed at the Middlesex Hospital, and lasted twelve minutes. Chloroform was used for the anaesthesia. Before operation the patient's temperature was 99° F., and the pulse-rate 130. Twenty hours after the operation her temperature was 102° F. and the pulse-rate 140, but the thyroid gland had markedly decreased in size and the eyeballs were less prominent. Forty-eight hours after the operation she was in a desperate condition. The temperature was 104° F., pulse-rate 180, and the thyroid gland had further diminished in size. The patient died fifty-six hours after the operation. A *post-mortem* examination was not permitted. This experience confirms the opinion that women with well-marked exophthalmic goitre are bad subjects for any operation.

DIABETES.

The presence of sugar in the urine is, as a rule, a contra-indication to hysterectomy for fibroids. The urine of all patients requiring hysterectomy who come under my care is carefully examined for sugar.

It is a serious responsibility to operate on a patient whose urine contains sugar, but the risk must be faced in exceptional cases. A widow, aged 43, passed sugar in the urine to the extent of 5 grains an ounce. She suffered from menorrhagia, her menstrual periods lasting on an average ten days, the excessive bleeding depending on a large submucous fibroid. The patient wished to remain married, and was deterred from doing so, not by the glycosuria but the menorrhagia. She wished to have the tumour removed, and was willing to face the risks. I performed subtotal hysterectomy. The operation was followed by a quick and uneventful convalescence; the patient married again, and was in good health three years after the operation.