tions were (probably) due to a lesion of the grey matter; in the second to a lesion of the motor nerve roots. Consequently in the first case the prognosis as regards recovery from the paralysis is very bad, in the second case very good.

In the first case the paralysis, which was, I believe, due to a lesion of the grey matter, has been throughout its course a "flaccid" paralysis; in the second case, in which the paralysis was, I believe, due to an injury of the motor nerve roots, there had been marked symptoms of motor irritation (rigidity, twitchings, and spasms).

In the first case the sensory disturbances which have gradually developed have persisted; in the second case they were completely recovered from in the course of a short time (three weeks).

In the first case there has been some affection (paralysis) of the bladder and rectum and marked trophic disturbances; in the second case these symptoms have been entirely absent.

The first patient had for years been a hard drinker; the second patient has always been a steady man, never given to alcoholic excess.

Note as to the Treatment and Subsequent Progress of the Case.—The patient was treated with electricity, massage, and hypodermic injections of strychnine. He rapidly improved, and was discharged on July 31st. The grasping power of the hands at this date was as follows:—Right = 75, left = 95. The movements at the shoulder-joint were much more freely performed than at the date of his admission, and the paralysed muscles had gained considerably in bulk. When last seen (November 13th, 1897) he stated that he had been working for a week; the movements of the shoulder are much more free, and the muscular power and nutrition much improved; the neck is still stiff, but the immobility is rather less than it was.

NOTES AND REFERENCES.

¹ It must be remembered that in some cases of alcoholic peripheral neuritis with paraplegia, shooting pains are complained of, and hyperæsthesia of the sole and muscular tenderness (on pinching the calf muscles) are very marked. ² As I will presently point out, different observers are not agreed as to the exact sensory distribution of the spinal nerves connected with the lumbar and sacral segments of the cord. ³ Die Läsionen des Rückenmarks bei Verletzungen der Wirbelsäule, Figs. 86 and 87, *Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, erster Band, viertes Heft, p. 655.

TWO CASES OF OÖPHORECTOMY FOR INOPERABLE BREAST CANCER.*

By W. WATSON CHEYNE, F.R.C.S., F.R.S.,
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THE very remarkable success which attended Dr. Beatson's first case of oöphorectomy for inoperable cancer of the breast has led me to perform the operation in two cases, and, as it is of importance that any cases in which this operation has been done should be reported, with the view of ascertaining what value, if any, attaches to it, I need not apologise for reporting the two cases in which I have performed it.

CASE I.—Mrs. S., aged 34, admitted to King's College Hospital on October 23rd, 1896. The history of the case was that the patient was well until about three years previously, when she noticed a swelling in her right breast, which rapidly increased in size. The breast was removed at a country hospital, and she was told that it was a cancerous tumour. A year later she went back to the same hospital and some enlarged glands were removed from the axilla. Three weeks before admission she felt pain along the old scar, noticed some discharge, and found that there was an ulcer in the mid-axillary line.

On admission, the patient seemed in fairly good condition, but complained of pain in the region of the right breast and between the axillary folds. On examination, a scar was seen running in the space between the fifth and sixth ribs, and curving upwards towards the base of the axilla and a little to the inner side of the angle of the fifth rib, there was a red and slightly ulcerated and thickened part in the scar. Between the axillary folds in the scar itself were two small nodules, and on the left side of the scar towards the axilla was an ulcer about the size of a shilling, with considerable induration of the skin around and redness of the skin; in the axilla there was a hard tender mass, occupying the greater part of the space, somewhat flattened and firmly adherent to the side of the chest, so that it could not be moved in any direction; it filled up practically the whole of the axilla. There were numerous glands in the posterior triangle of the neck, some of which were large, especially one towards the outer border of the edge of the sternomastoid muscle. There was no evidence of internal deposits.

The case was clearly one where no good could result from an attempt to remove the disease; not only was it very extensive but it was also very adherent, and, judging from the large size of the glands in the lower part of the posterior triangle of the neck, it was almost certain that other enlarged glands would be found further in which could not be taken away. The question of oöphorectomy as an alternative

procedure was therefore put before her, and, having been thoroughly explained to her, she consented and desired to have the operation performed. Accordingly, on October 28th, both ovaries and tubes were removed, and at the same time a small portion of the ulcerated patch was cut away for microscopical examination.

There is nothing whatever to note about the progress of the oöphorectomy; the patient went on perfectly well. She was discharged from the hospital on December 23rd; at that time there seemed to be distinct improvement in the cancerous growths; the ulcer had undoubtedly cicatrised to a considerable extent; the mass in the axilla felt softer and not quite so adherent; the glands in the neck were noticeably smaller and the patient was in excellent health.

On March 16th, about four months and a half after the operation, she showed herself, and the following is the note taken:—A great deal of the skin infiltration has disappeared, but there still remains a small patch of ulceration about the size of a threepenny bit at the posterior part of the original mass, and there is a small scab on it; the mass in the axilla is distinctly smaller and softer, and is now freely movable; the glands in the neck are very much fewer; they are only about the size of split peas, and, indeed, the large ones at the lower part have entirely disappeared. The patient is very well with the exception that there is a little friction to be heard at the lower part of the left pleura, which she herself can feel on exertion, but there is no pain or other symptom associated with it. It should have been said that thyroid tabloids were also given while she was in the hospital, and were continued nearly up to the middle of March, but the administration was irregular once she left the hospital.

Improvement still continued for a considerable time, but towards the end of May she did not feel so well, and when seen on June 4th the following is the note:—The growth has now again distinctly increased; the ulceration has extended, and is nearly as large as it was originally; the mass in the axilla is larger than on the last occasion and becoming more adherent, but still it is not quite so extensive nor so adherent as at the time of the operation. As regards the neck increased growth is very apparent; the glands are quite noticeable and the large glands have again reappeared; indeed, the condition in the neck seems worse than it was before the operation; the pleuritic friction still continues and the patient feels weakly, but there are no special signs of internal deposit.

She had to give up her situation shortly after this on account of increasing weakness and pain, and I have not seen her since, but Dr. Bennett, of Staplehurst, sent me an account of her condition at the beginning of March. At that time the ulcer below the axilla had increased greatly in extent, reaching from the anterior to the posterior fold of the axilla; it was about an inch and a half broad. A nodule in the pectoral muscle had appeared and increased in size. There was a large mass in the axilla and glands in the neck, one of them the size of a walnut. The patient suffered great pain, and had to have frequent doses of morphine.

CASE II.—Mrs. F., aged 33, admitted to King's College Hospital on May 23rd, 1897. The patient said that about nine months ago she found the outer side of the left breast tender, and about five months ago she noticed a swelling there; from that time this swelling has steadily increased in size, and for the last two months she has had shooting pains down the arm and in the side. About two months ago she noticed a small swelling on the right side, and also swellings under her arm. On examination a large nodular tumour was found in the left breast, chiefly towards the outer side, and also extending inwards beyond the nipple; the tumour was hard, adherent to the skin; the skin at one part was red and about to give way; there were a number of nodules in the skin round about the breast, and a nodule on the right side towards the upper edge of the breast and apparently superficial to it; the axilla was full of glands, which were matted together and of considerable size, and evidently adherent to the tissues around; there was also a mass of glands above the clavicle; small, hard glands could also be felt in the right axilla; there was distinct enlargement of the second costal cartilage on the left side; slight discharge from both nipples. The patient was extremely weak; she had never been subjected to an operation. This was clearly a case in which no radical operation could be performed with any chance of success. The question of oöphorectomy was therefore explained to her, and she consented to undergo the operation. Accordingly, on May 26th, both ovaries and tubes were removed. The wound healed well, and the patient was discharged on June 10th. At that time it was thought that there was a slight improvement, but not to any marked extent; the tumours seemed to feel softer and flatter, and not to have progressed at all; in fact, some of them seemed rather smaller. She was seen from time to time during the course of the next few months, but was found to be gradually getting weaker and thinner, and no real improvement could be made out. Thyroid tabloids were given in the first instance. Her condition steadily got

* Read before the Harveian Society, April 14th, 1898.

worse, internal deposits in the liver, and probably in the pleura, also appeared, and ultimately the patient died towards the end of October.

In this case one could not say that there was the slightest beneficial result from the oöphorectomy. In the first case, however, the oöphorectomy had undoubtedly a very marked effect on the growth of the cancer, and led to very distinct breaking down or absorption of portions of the growth. The interesting point, however, is that the effect of the oöphorectomy gradually passed off, so that at the end of about six months the disease began to grow again, and has since made marked strides. The result of these two cases, which were typical cases in young women where the ovaries were still active, and where therefore their removal, if of advantage, should have produced the most marked results, is extremely discouraging, and I doubt if it is worth while going on with the procedure. Nevertheless, as a scientific fact it is clear, especially taken in conjunction with Dr. Beatson's first case and one reported by Mr. Boyd,¹ that there is a distinct connection not only between the normal epithelium of the breast and the ovaries, but also between cancerous epithelium of the breast and the ovaries. But unfortunately in all the cases it appears that the effect of the removal of the ovarian influence is only more or less transitory, while in many cases no effect is produced at all.

If one were to perform the operation again I think it would be well, either at the same time, or possibly better later, to remove as much of the noticeable disease as possible. This has already been suggested by Dr. Beatson, and Mr. Boyd in one of his cases removed the ovaries, breast, and glands at the same time; sufficient time has not yet elapsed in his case to form any opinion of the result. If the result of removal of the ovarian influence is to lead to atrophy of epithelium originating from the mamma, it would clearly be of advantage to have as little epithelium present as possible. It is quite probable that if too much epithelium is present the removal of the ovarian influence might not produce sufficient alteration in the body to overcome all the disease.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, October 2nd, 1897.

GASTRO-JEJUNOSTOMY FOR PYLORIC CARCINOMA.

By F. C. WALLIS, F.R.C.S.,

Assistant Surgeon to Charing Cross Hospital and Surgeon to the Metropolitan Hospital.

S.B., aged 59, was admitted into the Metropolitan Hospital on March 24th, 1898, with carcinoma of the pylorus.

Previous History.—For four or five years she had pain about two hours after food, and emaciation and occasional vomiting for the last twelve months. Vomiting had been more frequent lately, but she had no pain except after food. A swelling was first noticed by a doctor on November 22nd, 1897.

Condition on Admission.—She was a small, sallow-complexioned woman, considerably wasted. A freely-movable, hard, nodular, irregular mass, about the size of a small fist, could be felt superficially, just above and a little to the right of the umbilicus. There was a second hard, rather fixed swelling, situated below the ensiform cartilage. On the night of admission she vomited about 0 iiij of brownish fluid. On March 26th the stomach was washed out with boracic lotion. She was much relieved by this, but on March 30th the stomach was greatly distended. It was again washed out.

Operation.—On April 1st the stomach was washed out at about 12 midday, and at 2.30 P.M. a 4 per cent. solution of eucaïne was injected under the skin along a line running from the ensiform cartilage to the umbilicus. An incision 5 inches long was at once made along the line of injection, and the peritoneum was reached and divided. The stomach, with the large growth at the pylorus, was found and pulled forward. The gastro-hepatic omentum was found to be extensively infiltrated with the growth. The transverse colon was now drawn to the right, and the jejunum found and pulled forwards. Up to this period the patient had felt no pain, and spoke cheerfully to those around her. She now began to feel a little faint, so ether was administered, but the

steps of the operation were not discontinued. The jejunum was brought up to the stomach, until about 5 inches lay along the viscus quite loosely. Intestinal clamps were passed through the mesentery 2 inches beyond this limit on either side. The intestine was now anchored to the stomach at either end by two Halsted sutures. Two curved rows of Halsted sutures were next made to unite the intestine to the stomach. The stitches were placed one-sixth of an inch from each other. The lower row was first put in and tied, then the top row was placed in position, but not tied and kept wide apart. The stomach was now pulled well up and incised for $1\frac{1}{2}$ inch; the same was done with the jejunum. No contents escaped. The top row of sutures was now tied up, particular care being taken about the angles of union, and a few additional sutures were placed at these situations. The whole of the mass was well washed with warm boracic lotion, then everything was returned to the abdomen after removal of the intestinal clamps. The wound was sewn up by two rows of sutures. Fine silk was used for the anastomosis. The operation lasted two and a-half hours. The condition of the patient at the end of the operation was excellent.

After-treatment.—A teaspoonful of hot water was given by mouth every hour for the first twenty-four hours. Nutrient rectal enemata (4 ounces) were given every four hours, and were well retained. Small quantities of milk and tea were given by the mouth on third day. The patient sat up on the eighth day, and began solid food; she got up on the eighteenth day, and has been about ever since. Flatus was passed on the second day. The bowels were opened on the fourth day after an enema, and acted most copiously after enemata. The temperature never rose to 100°, and the pulse ranged between 85 and 95. The patient has been most comfortable since the operation, and has not vomited at all.

Remarks.—The eucaïne injection in this case was quite a success as far as it went, and shortened the general anæsthesia by twenty minutes. About 3jv of the 4 per cent. solution were injected, and the knife was used immediately. It was my original intention to use some sort of button here, but this was not possible owing to the great thickness of the stomach wall. The Halsted stitches answered admirably, the one drawback being the time that is necessarily taken in placing them. The immediate and complete relief that the operation afforded to the patient was delightful to see, and gave one a great opinion of the value of the operation. My best thanks are due to my colleague, Mr. Percy Furnivall, for his able assistance; in fact, the success of the operation is mainly due to him.

RECORD OF ONE HUNDRED CONSECUTIVE CASES OF APPENDICITIS TREATED AT PRINCE ALFRED HOSPITAL, SYDNEY.

By J. C. HALLIDAY, M.B., CH.M.,
Late Resident Surgeon to the Hospital.

THE following record is taken from 100 consecutive cases treated during the last five years. The cases are divided into three classes:

	Cases.
A. Simple appendicitis without suppuration ...	64
B. Appendicitis with abscess formation ...	22
C. Acute perforative appendicitis, with general purulent peritonitis ...	14
Total ...	100

Taking all the cases together we have the following percentages: Males, 74; under 10 years, 4; between 10 years and 40 years, 80; operated upon, 55; mortality, 20.

Of the 64 cases in Class A the appendix was removed during an interval in 25, and 1 case was fatal, giving a mortality of 1.6 per cent.

Of the 22 cases in Class B, 17 recovered and 5 died, giving a mortality of 23 per cent.; 15 cases were between the ages of 10 and 30 years, and in 10 cases the attack was the first. In 1 case the abscess recurred after some months, and in 2 the appendix had to be removed subsequently for recurrent simple attacks.

The 14 cases in Class C were all fatal. The most noticeable features about this class are that out of the 14 cases 10