Two Cases of Lymphangioplasty for the Brawny Arm of Breast Cancer.

By W. Sampson Handley, M.S.

The two cases I show to-night are the first in which the operation of lymphangioplasty has been performed. I may remind you that the method will be found described in the *Lancet* of March 14, 1908. My thanks are due to Mr. A. F. Palmer, Medical Officer and Registrar in the Cancer Wing of the Middlesex Hospital, for the care and attention he has devoted to the after-treatment of the cases.

Case I.

The patient, a woman, aged 56, was admitted into the cancer wards of the Middlesex Hospital on January 18 last under my senior colleague, Mr. J. Bland-Sutton, who kindly transferred her to me for treatment. In 1894 a portion of the right breast was removed for carcinoma at Chichester Hospital. In 1896 recurrences in the breast and axilla were removed at St. Mary's Hospital. In 1903 two or three small recurrent growths were removed from the axilla. In 1905 the right arm became swollen; it slowly became paralysed, and has been the seat, during the past three years, of excruciating pain, which frequently kept her awake at night. On admission there was no evidence of cancer in the body in the form of palpable tumours. The right nipple still remained intact and was not indrawn, and there was no lump in what remained of the right breast, nor was there any axillary mass of growth. The chest and abdomen were free from deposits. The growth was evidently an atrophic scirrhus, which had undergone an almost complete process of natural cure. The right arm and hand below the deltoid insertion were greatly swollen. The œdema pitted slightly on pressure, though it approached the solid variety. There was complete paralysis of the limb, save that the third and fourth fingers could be moved slightly. Sensation was lost in the thumb and first finger, but not in the second, third, and fourth. The hand was warm and of natural colour. Flexion of the elbow was only possible through 15 degrees or rather less.

On February 1, under chloroform, a number of silk threads, each running upwards from the wrist to the loose tissue upon the chest wall, just below the axilla, were buried in the subcutaneous tissue. The operation produced no general disturbance of note. On the next day it

was obvious that the bandages were loose, and the strapping upon her fingers was in the same condition and had to be frequently replaced. On February 6 it was noted that the arm and hand were quite flabby and much reduced in size. The skin was much wrinkled and hung awkwardly on the fingers in folds. On February 7 the patient remarked that she "saw her knuckles for the first time for years." The movements of the fingers were beginning to return and she was able to grasp very feebly. The arm was still quite paralysed. On February 10 the forearm and hand began to present an almost normal appearance, but much swelling of the upper arm remained. On February 19 the swelling about the elbow, which as the patient lay was the lowest point of the limb, had somewhat increased, and the limb was ordered to be put up on an inclined plane in an extended position and to be bandaged during the night. On February 24 the limb was continuing to diminish in size, though less rapidly than at first. Unfortunately, measurements of the limb previously to operation were omitted, so that no accurate record remains of its very rapid and marked subsidence in the earliest days after operation. Its slower subsequent subsidence is recorded in the following table:—

	Feb. 6	Feb. 13	Feb. 18	Feb. 19	Feb. 21	Feb. 24	April 6
Circumference of arm—	in.	in.	in.	in.	in.	in.	in.
At wrist	7¼	6⅞	6⅝	6¾	6½	6⅜	6
4½ in. above wrist... ...	8½	8⅜	8¼	8	7¾	7⅜	6¾
Just below the elbow ...	10½	9½	10¼ [1]	10⅛	9⅜	9⅝	9⅜
8⅞ in. below the acromion	11	8⅞	10½ [1]	10⅜	9½	9⅜	9¾

[1] Temporary return of swelling owing to dependent position of elbow.

Note.—The operation was performed on February 1.

In conclusion, it may be stated that the patient has lost her pain and that she is very grateful for the operation. Flexion of the elbow is now possible through about 110 degrees, as compared with about 15 degrees or less before the operation. The movements of the hand continue to improve, so that the patient can hold a pin between the finger and thumb. It will be interesting to see whether the muscles of the arm recover their power, but at present there is no sign of this. The measurements of the limb in this case have continued to decrease up to the time of writing (April 8, 1908).

Case II.

This patient, E. A., a woman, aged about 50, first noticed a small lump in the left breast in 1897. In 1899 the breast was removed at the North-West London Hospital by Mr. Frederick Durham. Operations for recurrence, four in number, have been performed at intervals since. The first of these took place in 1902, the second in 1904, the last in 1906. She was admitted to the cancer wards of the Middlesex Hospital on January 3, 1908, for inoperable recurrence in the left axilla and near the scar, and for swelling of the arm, and was kindly transferred to me for treatment by my senior colleague, Mr. John Murray. On admission the left arm, and more especially the forearm, hand and fingers, are much swollen, and the limb is completely paralysed. The hand is purple in colour, but the fingers are warm. On account of the swelling of the tissues the radial pulse cannot be felt. The œdema pits slightly on pressure, although in places it is almost solid. The pain in the arm is occasionally most severe, and in consequence of it the patient suffers much from insomnia. Amputation had been suggested before the patient's admission, and her condition was so miserable that she was prepared to welcome the loss of the limb.

Owing to the axillary recurrence and to the consequent absence of loose skin on the thoracic wall in front, it was deemed well in this case to carry the threads up on the posterior aspect of the axilla. They terminated in the subcutaneous tissue over the scapula. Four pairs of threads were used, as in the previous case; two on the flexor and two on the extensor aspect of the arm.

Measurements of Arms.

	Right Arm (normal)	Left Arm				
		Before operation	Mar. 3	Mar. 13	Mar. 18	April 6
	in.	in.	in.	in.	in.	in.
4½ in. above the wrist	7¼	9¼	7¾	6⅞	6⅝	7
Just below elbow	8¾	11¼	9⅜	8⅞	9⅜	9
1½ in. above elbow	8¾	12½	10	9⅞	10⅛	10
8 in. below acromion	9	12	10⅛	10⅜	9⅝	9⅝
Just below fold of axilla	10	10¾	11½	11¼	11	10⅝

The swelling in this case, as in Case I., subsided from below upwards, the subsidence being first noticed in the hand and forearm. The excruciating pain has been entirely relieved and the patient has good nights. She appears to be putting on flesh, and her worn expression has been replaced by a more contented look. She still has a certain amount of axillary pain due to the recurrent growth in the axilla.

DISCUSSION.

Mr. CECIL LEAF desired to compliment Mr. Handley on the excellent results in his two cases. Dr. Lomer, in a recent paper, discussed the curability of cancer, and among other points which he noticed was the fact that patients who bled much in advanced cancer were often much the better for it. Dr. Copeman had suggested that the fact might be utilized in advanced cases of cancer with brawny arm, and had suggested to him the advisability of trying venesection. At that time Mr. Leaf had under his care at the Cancer Hospital three cases of advanced carcinoma of the breast with brawny arms, and on all of them he performed venesection, removing some $\frac{3}{4}$ pint of blood. In all of them the œdema of the arm rapidly diminished, although he regretted to say it had subsequently again increased. But if, in these cases, venesection could be performed repeatedly, he believed that not only would the œdema be diminished, but that the mere fact of withdrawing blood might remove the deleterious products in the blood, and so diminish the growth of the cancer. He suggested that Mr. Handley's operation could with advantage be supplemented by venesection, and he should be glad to know the result of such a measure.

Dr. PARKES WEBER asked whether Mr. Handley's operation would be of any use in cases of so-called sporadic elephantiasis of the lower extremity, particularly in an early stage.

Dr. ZUM BUSCH said that three or four years ago he had had some correspondence with Professor Lauenstein, who had told him that he had for some time been making experiments on the treatment of lymphatic enlargement of the scrotum by introducing a silver wire beneath the skin of the scrotum and leaving it there, and that he had had good results. It was a very similar treatment to Mr. Handley's.

Dr. COPEMAN said that in one of Mr. Leaf's three cases treated by venesection the effect was nearly as good as that in Mr. Handley's cases shown that evening. If, as Mr. Handley said, the lymphatics became converted into solid cords, the good effect of venesection was difficult to understand unless, owing to the diminution of pressure, the veins were enabled to carry off the lymph. In one of Mr. Leaf's cases the recovery of use of the arm was more striking than in Mr. Handley's cases. Possibly the combination of methods might yield even better results.

Mr. HANDLEY remarked on the short period of benefit from the venesection. He thought it better that the two operations should be tried in separate cases, in order that the results could be compared. In answer to Dr. Parkes Weber, he thought that the method was applicable to elephantiasis, not only to the sporadic cases, but also to the filarial cases in which the parasite had died out. He was interested in Dr. Zum Busch's remarks, as he was not aware that Lauenstein had published anything of the kind. With regard to the recovery of the use of the arm after venesection, he did not think that the two cases were comparable, for the reason that the arm of his first patient had been paralysed for three years, so that it was not fair to expect much recovery at present of power, as three months had not yet elapsed since the operation.

Case of Ascites; Paracentesis performed twenty-five times in one year and three months; patient quite well seven years later.

By FRANCIS HAWKINS, M.D.

J. C., AGED 43, a gardener, stated that he had not known what illness was until August, 1899, when he noticed that his feet were somewhat swollen, that he was losing flesh, his abdomen was increasing in size, and that subsequently he had a difficulty in passing urine.

On September 6, 1899, he came under my observation. He had never been a heavy drinker, but had taken a small quantity of whisky every night; he had never suffered from venereal disease, nor vomiting, epistaxis, hæmatemesis, or melæna. He was a thin, spare man with small dilated venules over the cheeks. His feet and legs were œdematous. There was some slight œdema of the chest wall, that is to say, the stethoscope left a slight depression; there was also some œdema over the sacral region. The abdomen was greatly distended, and there was every evidence of free fluid within the abdominal cavity. The heart sounds were normal, but there was some œdema of the bases of both lungs. He passed during the first twenty-four hours 19 oz. of urine, specific gravity 1016. His temperature was 98° F.

On September 11, five days after admission, the abdomen having increased in size, paracentesis was performed, 23 pints 16 oz. of clear amber-coloured fluid being withdrawn. Nothing abnormal could be felt in the abdomen, and the liver dulness was about normal.

On September 17 he was again tapped, and 19½ pints were withdrawn. Four days later the urine, which had increased in quantity, was