ANALYSIS OF CASES IN WHICH "OOPHORECTOMY WAS PERFORMED FOR INOPERABLE CARCINOMA OF THE BREAST.

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IN view of the discussion on inoperable cancer at the annual meeting, a circular was published in the BRITISH MEDICAL JOURNAL of July 19th, p. 226, asking for notes of cases in which oophorectomy had been performed for inoperable cancer of the breast. Although the response to this letter fell short of expectation, a considerable number of reports were received, and certain of these were especially valuable as giving the later or final result of cases previously published by Dr. Herman, Mr. Stanley Boyd, Mr. Watson Cheyne, and others.

TABLE I.—Cases in which Decided Improvement followed Oophorectomy, and in which Life was Prolonged for more than Twelve Months after the Operation.

No. Surgeon.	M. S. Ch.	Menses.	Health.	Operations on Breast, etc.	Nature of Disease for which Oophorectomy Performed.	Date of Oophorectomy.	Thyroid.	Results.	Duration of Life after Oophorectomy.	Last Note.
1. Beatson	M. Ch.	33 Regular	Fair	Complete operation, January 25, 1895	Multiple recurrent nodules along scar and into axilla	June, 1895	Given steadily	Disappearance of nodules within 8 months	46 months	Fresh nodules. Disease of spine. Died April, 1899.
2. Stanley Boyd	M. Ch.	44 Regular	Good	Attempted removal of 16	Infiltration of chest wall	December, 1896	None	In 5 months the disease disappeared, except mass in pectoral	43 mos. +	Health excellent. No local recurrence.
3. Stanley Boyd	S.	37 Regular	Feeble	Complete operation, March, 1896	Multiple nodules on chest wall	February, 1897	Given for one month	In 6 months most of nodules disappeared	17 months	Local recurrence. Growths in viscera. Died July, 1898.
4. Stanley Boyd	M.	36 Regular	Feeble	Complete operation, October, 1895. Two nodules removed from chest, May, 1898	Inoperable axillary growth	September, 1899	None	Rapid disappearance of recent nodules	34 mos. +	Fresh nodules appearing.
5. Herman	M. Ch.	17 Irregular	Good	Removal of breast, October, 1896. Attempted removal of axillary glands, December, 1897	Nodules in pectoral, growth in axilla, etc.	March, 1897	Given steadily	Steady disappearance of all growths	44 mos. +	Quite well, and free from recognizable cancer.
6. Stanley Boyd	S.	31 Regular	Feeble	Complete operation, May, 1898	Nodules on chest wall, glands above clavicle	August, 1900	—	Rapid disappearance of recurrence. Marked gain in strength and weight	14 months	Relapse of growths. Cancer of liver. Died October, 1901.
7. Herman	M. Ch.	16 Ceased	Good	Breast removed, June, 1895	Ulcerating recurrence in scar	July, 1898	Given steadily	Ulcer healed. Marked gain in weight. Eighteen months' good health	29 months	Recurrence of ulceration. Died December, 1900.
8. Herman	M. Ch.	14 Regular	Good	Breast removed, June, 1895	Nodules in scar. Glands above clavicle, etc.	May, 1899	Given steadily	Shrinkage of nodules. Gain in weight. 18 months' good health	26 months	Paralysis of leg. Died December, 1901.
9. Herman	S. Ch.	13 Regular	Good	Breast removed, August, 1897. Recurrence removed, April, 1898	Nodules around scar	June, 1899	Given steadily	Disappearance of nodules. Gain in weight. 12 months' good health	23 months	Growths in stomach and liver. Died May, 1901.
10. Hopkins Walters	M. Ch.	11 Regular	Feeble	Complete operation, November, 1890	Nodules in scar with extensive ulcer, etc.	Oct., 1896	None	Healing of ulcer. Shrinkage of nodules. Gain in weight	16 months	Intrathoracic growths. Died February, 1898.
11. Watson Cheyne	M. Ch.	34 Regular	Fair	Breast removed. Glands removed later	Nodules in skin. Mass in axilla	Oct., 1896	Given	Diminution in growths for 6 months	67 mos. +	Fresh nodules and ulceration.
12. Watson Cheyne	M. Ch.	18 Regular	Good	Breast removed, 1893. Axilla cleared out, October, 1898	In cervical glands and swelling of arm	July, 1899	Given for 3 months	Gradual disappearance of glands	36 mos. +	In excellent health July, 1902.
13. Watson Cheyne	S.	2 Excessive fibroid	Fair	Several operations	Extensive local recurrence	May, 1899	Given steadily	Decided improvement	30 mos. +	Fresh nodules on chest, etc. In good health July, 1902.
14. "Eve"	S.	14 Regular	Good	Complete operation, 1895. Skin and supraclavicular glands removed, 1899	Nodules in scar, etc.	August, 1898	?	All signs of cancer disappeared in 3 months	45 mos. +	Extensive growths in skin of chest March, 1902
15. Edlowes	S.	15 Regular	Good	Breast removed, September, 1898	Involvement of skin and axilla	June, 1899	Given steadily	Disappearance of disease, and marked gain in health	32 mos. +	Extensive recurrence February, 1902
16. Waterhouse	M. Ch.	37 Regular	Fair	Complete operation, May, 1897	Mass behind pectoral and above clavicle. Swelling of arm.	August, 1899	Given for 4 months	Disappearance of swellings	38 mos. +	In good health and free from recognizable cancer January, 1902.
17. J. W. Smith	M.	43 Regular	Good	Complete operation, November, 1899	Extensive ulceration. Mass infiltrating pectorals	July, 1899	(None)	Healing of ulcer. Shrinkage of growth, which became movable	16 months	Secondary growths in pleura. Died October, 1900
18. Herman	S.	46 Ceased	Fair	None	Inoperable cancer	June, 1900	Given for 2 weeks	Shrinkage of growth. Gain in weight	22 mos. +	Ulceration of growth. Patient lost sight of April, 1902

The analysis has been continued on similar lines to those adopted by Mr. Stanley Boyd in his report published in the JOURNAL in October, 1900, and many of the cases reported by him are here included, with later or final notes whenever these were obtainable. The column relating to the total duration of the disease has been omitted, as the data on which it is based are usually inaccurate. A column giving the duration of life after oophorectomy has been added, the duration being stated in months, with the addition of a plus sign in those cases in which the patient was still living at the date of the last note.

TABLE I.—This table records a series of 18 cases in which decided improvement followed on oophorectomy, and in which life was prolonged for more than twelve months after the operation. The improvement usually affected both the local disease and the general health. In 4 of the cases *Life was Prolonged for more than Twelve Months after the Operation.*

the results may be described as remarkable. In Mr. Stanley Boyd's case (No. 2) the patient is in excellent health and free from fresh recurrence forty-three months after the operation. In Dr. Herman's case (No. 5) the patient is free from recognizable cancer forty-three months after the operation. In Mr. Watson Cheyne's case (No. 12) the patient is in excellent health and free from recognizable cancer thirty-six months after the operation. In Mr. Waterhouse's case (No. 16) the patient is free from discoverable cancer twenty-eight months after the operation. While these represent the most gratifying results hitherto recorded, there are others in which the progress of the disease was arrested and the general health much improved for periods ranging from one to two and a-half years.

TABLE II.—Excluding Mr. Pearce Gould's case, in which death resulted three months after oophorectomy from intestinal obstruction due to other causes than cancer, there are only 3 cases (Nos. 5, 6, and 9) in the above table in which the improvement following upon oophorectomy was still maintained at the time of the last report.

TABLE III.—This Table records 51 cases, in none of which was the progress of the disease appreciably influenced by oophorectomy. This number is not to be accepted as representing all the cases in which the result was negative, for the writer was verbally informed by several surgeons that they had performed oophorectomy on many occasions without benefit.

CONCLUSIONS.

From the data furnished in the various reports submitted to the writer the following conclusions may be formulated: The beneficial results following oophorectomy are sufficiently established to eliminate any question of coincidence or of error in diagnosis.

It is impossible to tell beforehand whether any benefit will result from

TABLE II.—Cases in which Decided Improvement followed Oophorectomy, in which Life was Prolonged for less than Twelve Months after this Operation, or which have been under Observation for less than Twelve Months Since the Operation.

No. Surgeon.	M. S. Ch.	Menstr.	Health.	Operations on Breast, etc.	Nature of Disease for which Oöphorectomy Performed.	Date of Oöphorectomy.	Thyroid.	Result.	Duration of Life after Oöphorectomy.	Last Note.
1 Pearce Gould	S.	41	Regular	—	Extensive disease of breast Glands and nodules in skin.	Jan., 1900	Given steadily	Marked diminution in severity of local disease.	3 months	Died April, 1900. Intestinal obstruction, apart from cancer. Only one nodule of cancer found in chest at necropsy.
2 Hopkins Walters	S.	51	Ceased	—	Inoperable cancer of breast skin, and glands	March, 1897	None	Diminution of growths, and marked improvement in health	9 months	Local disease again active. Died December, 1897
3 Abbe	?	41	Regular	Complete operation, May, 1900	Nodules in skin, glands : pleura involved	March, 1901	Given	Nodules diminished in size	8 mos. +	Loss of weight. Extension in pleura
4 Abbe	?	70	Ceased	Breast removed, 1893	Ulceration and multiple nodules	April, 1901	None	Improved general health	7 mos. +	Fresh nodules, November, 1901
5 Abbe	?	70	Ceased	—	Inoperable disease of breast and glands	May, 1901	None	Diminution in size of growths	6 mos. +	In excellent health, November, 1901
6 Abbe	?	70	Ceased	Breast removed, September, 1899	Recurrence in scar glands	May, 1901	None	Improved health	6 mos. +	Gained in weight. Local disease improving
7 Annandale	S.	39	Regular	Breast removed, March, 1902	Inoperable cancer of breast and ulcer	January, 1902	Given steadily	Improved general health	5 mos. +	1901 <i>In statu quo</i> July, 1902.
8 J. M. Cotterill	S.	27	Regular	Breast removed, June, 1900	Multiple nodules in skin. cancer in other breast and glands	July, 1901	Given	Partial disappearance of nodules	12 mos. +	Generalized carcinoma July, 1902.
9 Alexis Thomson	S.	36	Regular	Breast removed, July, 1901. Attempted removal of supra-clavicular glands, November, 1901	Irremovable disease above clavicle	November 1901	Given	Improved health	9 mos. +	In good health August, 1902.
10 Beaton	?	44	Regular	None	Inoperable cancer of breast and glands	October, 1900	Given steadily	Shrinkage of tumour, disappearance of glands	11 months	Died of growths in liver, pleura, and spine.
11 Edge	?	?	?	Breast removed, April, 1900. Glands removed, October, 1900	Involvement of other breasts and glands	March, 1901	None	Shrinkage of growth, gain in weight	7 mos. +	Ulceration of tumour April, 1902.

he operation or not, its effects being quite uncertain. The beneficial influence of oophorectomy is limited to carcinoma of the breast.

There is no age at which the operation is contraindicated; marked improvement has been observed in patients who have passed the menopause.

The best results have been obtained in cancers of slow growth in which the local disease has been submitted to a "complete" operation, and in which recurrence has taken place in the form of isolated nodules in the neighbourhood of the scar. Disease of the axillary or supraclavicular glands, with or without swelling of the arm, yields less rapidly and less frequently after oophorectomy, but has been observed to disappear or subside in a considerable proportion of cases.

The presence of metastases in the viscera or bones contraindicates the operation. The metastatic growths are not influenced by oophorectomy, and in cases where they are present no improvement is observed in the recurrent nodules in the vicinity of the primary disease.

In a considerable proportion of cases there is a marked relief from pain and improvement in the general health after oophorectomy.

The beneficial results of oophorectomy are transient in the majority of cases, the effects tending to wear off in from six to twelve months after the operation. In a limited number the beneficial results are more permanent, extending to periods of three and a-half years. In certain cases beneficially influenced by oophorectomy the local disease has become capable of being removed by surgical measures when this was previously impossible.

The administration of thyroid extract, although carried out in the majority of the successful cases, cannot be regarded as essential to success, inasmuch as certain of the most gratifying results have been obtained when the administration of the drug was omitted.

TABLE III.—Cases which were not Appreciably Influenced by Oophorectomy.

No. Surgeon	M. S. Ch.	Menses.	Health.	Operations on Breast, etc.	Nature of Disease for which Oophorectomy Performed.	Date of Oophorectomy.	Thyroid.	Results.	Duration of Life after Oophorectomy.	Last Note.
1 Stanley Boyd	M. 49	Ceased	Emaciated.	Removal of breast, August, 1891	Growths in liver, etc.	March, 1897	None	Nil	14 weeks	Died.
2 Stanley Boyd	M. 64	Ceased	Good	Removal of breast, April, 1896	Mass in chest wall	March, 1897	Given steadily	?	40 months	Growth at first stationary, then increased, ulcerated, bled, dying, July, 1900.
3 S. Boyd	S. 43	Ceased	Poor	Removal of breast, January, 1900	Extensive disease in breast and axilla	January, 1900	None	?	6 months	Died of extension of disease.
4 Hopkins	M. 55	Ceased	Feeble	Removal of breast and glands, August, 1890	Multiple nodules, swelling of arm	March, 1897	None	Diminution of growths	1 month	Died. Growths in omentum, stomach, and liver.
5 Walters	M. 54	Ceased	Good	Removal of breast, November, 1893	Multiple nodules in scar, etc.	October, 1899	Given	?	5 months	Hemiplegic and dying, March, 1900.
6 Berry	M. 46	Regular	Good	Removal of breast, May, 1897	Disease in axilla and in neck	May, 1897	None	Possibly prevented local recurrence	37 months	Dying of generalized cancer, June, 1900.
7 Stanley Boyd	M. 32	Irregular	Good	Breast removed, March, 1896. Removal of glands above clavicle. Amputation of arm	Glands above clavicle	November, 1897	None	?	32 months	Died June, 1900. Extension of disease, (?) metastasis in liver.
8 Stanley Boyd	M. 46	Regular	Very feeble	Breast removed, November, 1897	Disease in axilla, etc.	November, 1897	Given steadily	?	14 mos. +	Fungating local recurrences, September, 1898
9 Stanley Boyd	M. 40	Regular	Good	Breast removed, November, 1899. Recurrence removed, March, 1899	Recurrence in scar glands above clavicle	March, 1899	None	?	12 months	Dying of generalized carcinoma, March, 1900.
10 Stanley Boyd	S. 39	Regular	Good	Breast and glands removed, November, 1894. Removal of nodules, July, 1898. Amputation of arm	Nodules in scar glands above clavicle	June, 1899	Given for some weeks	Probably none	11 months	Died April, 1900; extension of disease.
11 Stanley Boyd	M. 41	Regular	Good	Removal of breast and glands, June, 1899	Nodules in skin, etc., glands above clavicle	April, 1900	None	Probably none	—	Disease progressing when last seen.
12 Stanley Boyd	M. 39	Regular	Good	Complete operation, July, 1900	Involvement of skin and glands	July, 1900	None	Probably none	—	Recurrence within 2 months.
13 Beaton	M. 40	Regular	Fair	None	Extensive disease in breast and glands	October, 1895	Given	Relief of pain	12 months	Died 1896; secondary growths in liver.
14 Watson	?	Regular	Very feeble	None	Inoperable breast	May, 1897	Given	Very slight	5 months	Died October, 1897; growths in lungs and liver.
15 Cheyne	S. 45	Regular	Fair	Complete operation, April, 1899	Recurrence in scar	June, 1899	Given	None	2 months	Died.
16 Eve	M. 44	Regular	Fair	Complete operation, November, 1897	Recurrence in scar; swelling of arm	July, 1899	?	None	9 months	Worse in all respects at last note.
17 Waterhouse	S. 44	Regular	Fair	Removal of breast and of recurrences	Recurrent nodules in scar	Aug., 1899	?	None	3 months	Recurrences growing fast.
18 Neahey	M. 45	Regular	Good	Complete operation, December, 1895	Nodules in scar; glands above clavicles	June, 1897	None	Slight, if any	4 months	Died. Cancer of spine; recurrent nodules remained small.
19 Bloxam	S. 42	Regular	Cahectic	Complete operation, December, 1899	Extensive disease in glands and skin	Dec., 1899	None	Disappearance of nodule in axilla	11 mos.	Signs of growth in spine; no local recurrence. Died November, 1900.
20 Stanley Boyd	S. 36	Regular	Good	Complete operation, January, 1900	Extensive infiltration of skin	May, 1900	Improvement	—	24 days	Sudden death from dyspnoea.
21 Bidwell	?	Regular	Very feeble	Complete operation, February, 1898	Extensive disease of skin	Dec., 1898	—	—	Few months	Died from progress of disease.
22 Carters	S. 34	Regular	Fair	Complete operation, 1898	Disease in axilla	1898	Given	Nodules stationary	—	Lost sight of after few months.
23 Clutton	M. 19	Regular	Anæmic	Complete operation, 1899	Disease in supraclavicular glands	Dec., 1899	Given	Little improvement	—	August, 1900. Growths in spine.
24 Bacie	M. 27	Regular	Good	Complete operation, 1899	Disease in scar and glands	1899	None	—	—	—
25 Pitts	M. 51	?	?	Complete operation, May, 1897	Recurrent nodules and glands in neck	Mar., 1899	None	None	8 months	Died.
26 T. K. Dalziel	M. 54	?	?	Complete operation, May, 1899	Ulcerated recurrence in scar	Oct., 1899	None	None	4 months	Died.

?	54	?	?	Complete operation May, 1901	Glands in neck, etc	Oct., 1901	?	None	?	Disease progressing.
27 R. H. Hodgson	40	?	?	None	Ulcerated breast; oedema of arm	Mar., 1902	—	—	6 weeks	Died. Carcerous mass beneath liver.
28 Frank C. Madden	40	?	?	None	Inoperable breast	May, 1902	—	No improvement	—	Still under observation.
29 Frank C. Madden	42	?	?	Complete operation, November, 1900	Recurrence in scar and glands	June, 1901	—	No improvement	9 weeks	Died of extension of disease.
30 Alex. Miles	42	?	?	Complete operation, February, 1901	Recurrence in wall of thorax glands	March, 1901	—	No improvement	3 months	Died of disease in spine.
31 Alex. Miles	?	?	?	Complete operation, 3 years before	In scar and glands	?	Given	No improvement	3 months	Died. Secondary growths pleura and liver.
32 Lynn Thomas	?	?	?	Complete operation, 2½ years before	In scar and glands	?	Given	No improvement	?	Died. Secondary growths.
33 Lynn Thomas	?	?	?	Complete operation	Nodules in skin, etc.	Sept., 1896	Given	No improvement	7½ mos.	Died. Exhaustion.
34 Annandale	?	?	?	Complete operation	Leathery skin, etc.	Oct., 1896	Given	No improvement	4 months	Died. Progress of disease.
35 Annandale	?	?	?	Complete operation, August, 1900	Nodules around scar	Dec., 1900	Given	Temporary improvement	2 months	Died. Progress of disease.
36 Annandale	?	?	?	Complete operation, May, 1899	Nodules; scar; swelling of arm	Dec., 1899	Given	Temporary improvement	4 months	Died. Progress of disease.
37 J. M. Cotterill	38	?	?	Removal of breast	Fungating breast; cancer of peritoneum; ascites	?	—	No improvement	6 months	Died. Progress of disease.
38 D'Arcy Power	33	?	?	—	Nodules in scar; glands in neck	May, 1897	Given	Temporary improvement	5 months	Died. Growths in liver and pleura.
39 Watson Cheyne	?	?	?	Removal of breast, December, 1900	Glands root of neck	May, 1901	—	Temporary improvement	5 months	Died.
40 Abbe	?	?	?	Removal of breast, February, 1900	Glands above clavicle	May, 1901. Ovaries cancerous Feb., 1902	—	—	Few months	Died.
41 Abbe	40	Regular	Feeble	None	Inoperable breast	—	None	None	—	—
42 A. Donald J. W. Smith	53	Ceased	Fair	Breast removed, November, 1899. Recurrence, June, 1900	Recurrence	Sept., 1900. Ovaries atrophied Nov., 1900. One contained nodule of cancer.	Given (fair trial)	No benefit	7 months	Disease progressed and died, April, 1901.
43 Herman Case VI	24	Regular	—	Complete operation, April, 1900	Nodules near scar; glands above clavicle	Oct., 1900	—	Temporary diminution of recurrent nodules; disease retarded	—	July, 1901. Mass in pelvis.
44 Herman Case VII	49	Irregular and recently ceased	—	None	Inoperable breast	Feb. 1901. Ovaries atrophic	Given steadily	Pain less; shrinkage of growth	4 months	Died June, 1901. Intestinal obstruction.
45 Herman Case VIII	43	Recent pregnancy	—	Breast removed, January, 1900	Ulceration of chest wall	Oct., 1900	3 weeks	Practically none	5 months	Died March, 1901.
46 Percy Paton	31	Recent pregnancy	—	Breast removed, May, 1901	Inoperable breast	July, 1901	—	Felt better; speedy recurrence in scar	5 months	Died December, 1901. Progress of disease.
47 Percy Paton	40	Regular	—	Breast removed	Recurrence on chest	—	—	No relief	—	Died.
48 Lockwood (Butlin's case)	—	—	—	—	—	—	—	No relief	—	—
49 Butlin	51	Ceased	Fair	Breast removed, January, 1897; recurrence removed, November, 1900	Nodules near scar and above clavicle; involvement of pleura	Nov., 1901	—	No improvement	—	—
50 John Chiene	35	—	—	None	Inoperable breast and glands	Nov., 1897	—	No improvement	—	—