

TABLE VIII.
POST-OPERATIVE COMPLICATIONS.

	Perineal Section and Drainage. Cases.	Prosta- tectomy. Cases.
Epididymitis (unilateral),	8	12
Epididymitis (bilateral),	3	2
	11	14
Abscess of epididymis and suppurative vaginitis	0	3

Epididymitis. — Fourteen cases developed post-operative epididymitis; there did not seem to be any rule as to the time which this complication occurred. The shortest time was the fourth day; the longest was the forty-fifth day.

In 3 of these cases the epididymis suppurated and there was a concomitant suppurative vaginitis.

In one case the testes was so diseased as to require castration. In another, the globus minor was removed.

In all of these 3 cases, cultures of the pus showed a pure streptococcus infection.

In 2 of the 36 cases drainage was done to the rectal wall at the time of operation.

In Case 2 of the series, the anterior wall of the rectum and the sphincter was torn; this was repaired at once and healed *per primam*.

The other case, operated upon by an assistant, showed at the end of the first week a small fistula (perineo-rectal) which was not healed, as patient declined operation.

In 2 cases, Nos. 10 and 32, operations were done for hemorrhoids which had developed during their illness, and this prolonged their stay in the hospital.

In 1 case, No. 11 (assistant's), there was a profuse discharge of pus from the perineal wound which delayed union forty-one days.

In 2 cases, Nos. 14 and 15, the seminal vesicle was found to be diseased. In one, No. 14, the vesicle was opened and drained. In the other, No. 15, both vesicles were removed.

The time spent in hospital by some of the patients might seem long, but this was necessary because I desired to keep these patients under observation, as many of them could not otherwise have been traced.

As to the results of this operation on the sexual function, this is a more important question than in cases of prostatectomy in older men with enlarged prostates. We have been able to examine most of our patients and we have found that in no case has there been a complaint in regard to the character of the erection or the ability to have sexual intercourse. The sensation is not impaired but a discharge of seminal fluid at the time of the orgasm is entirely absent.

I do not think that the necessity for prostatectomy in prostatic abscess can always be determined before opening the urethra through the perineum. The indications for an operation, whether perineal section and drainage or of prostatectomy, are very definite, but it is only by examination of the prostate by the finger passed into the prostatic urethra through a perineal

opening that the necessity for prostatectomy can be positively known.

There is no absolute rule to guide the surgeon. The condition found at the time of operation must determine the extent of the operation, just as it does in all surgical procedures.

I have not abandoned altogether perineal section and drainage. I still consider this a good method, but the question is, whether prostatectomy is not a better method in the majority of cases.

I wish to express my thanks to Dr. Victor C. Thorne, assistant attending surgeon at Bellevue Hospital, for valuable assistance in collecting the clinical facts which form the basis of this paper.

TOTAL EXTIRPATION OF THE LOWER PHARYNX FOR EPITHELIOMA, WITH PERMANENT ESOPHAGOSTOMA: REMARKS UPON THE SURGICAL TREATMENT OF CANCER

BY MAURICE H. RICHARDSON, M.D.,
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THE operative treatment of malignant disease seems at times so discouraging that it is no wonder that the surgeon's pessimism tends to increase as experience increases; no wonder, too, that he feels more and more strongly drawn toward conservatism and non-operative treatment, especially in cancer so situated as to forbid extensive and wide-margin dissections. Moreover, after reviewing the experience of many years, he cannot but feel somewhat skeptical of the brilliant results that he reads about, when in similar cases, with his own eyes, he sees only failures. When, for example, he sees reported a large percentage of cures after a certain method of extirpating cancer of the uterus, a locality where anatomically it is impossible to remove the disease by a broad margin, he is deeply impressed by the fact that under like conditions, after equally thorough operation, he himself gets but a small percentage of cures. Perhaps, indeed, he feels, as I am sometimes inclined to feel, that a permanent cure after hysterectomy for cancer of the cervix is about the strongest argument against the diagnosis of cancer. I do not, of course, mean quite this; but in the case of Mrs. B., Mrs. D. and Mrs. C., who lived years and years, and, for all I know, are living to-day, after vaginal hysterectomy for cancer, I could not but feel either that there was some mistake in the diagnosis, or that, as is surely the case, there is a great variation in malignancy, when the microscopic findings are identical. Be that as it may, how in the nature of things can it be that Dr. A.'s results make such a bad showing, compared with those of Dr. B., under apparently the same conditions? It seems incredible, even admitting that Dr. A.'s methods are bad and Dr. B.'s good. And furthermore, how can it be that Dr. C.'s results after thorough extirpation of the breast for cancer, an easy operation in an accessible area, do not compare at all favorably with Dr. D.'s results in extirpation of the uterus for cancer, a difficult

operation in a comparatively inaccessible area? And yet breast cancer is discovered and operated upon early, whereas cancer of the uterus is almost always recognized late.

What is a man to say or believe when he compares his own 30% recoveries after operation for breast cancer with another man's 50% or 60% recoveries after hysterectomy for uterine cancer? And yet I saw published not long ago such an extraordinary record of successes.

Common sense, in response to so natural a query, says that somewhere there must be error; that two such experiences are utterly incompatible; that cancer of the uterus, even in the most skillful hands, cannot, from the nature of things, present as high a percentage of recoveries as cancer of the breast, even in less skillful hands.

I admit the feeling of discouragement which now and then comes over me when I see recurrences after the broadest possible dissections of breast cancer. I do not mean recurrences in the unfavorable cases, in which at the time of operation there are infiltrations of skin and axilla; but recurrences after the most radical removal of the small, movable tumor, with thorough dissection of the axillary nodes, which, if infected at all, are not perceptibly abnormal. Neither do I mean local recurrences, which suggest operations lacking in thoroughness. I mean, rather, the metastases of lung, brain and spinal cord, infections so distant in time and in anatomical situation that all connection between the original disease and its later manifestations is lost.

Take, for instance, the case of Mrs. M. (Vol. lxiii, p. 113), in which there was not a sign of recurrence in or about the scar. The patient now, two years after operation for breast cancer, suffers intensely with a right sciatica, owing probably to an invasion of the spinal cord.

Take the case of Mrs. B. (vol. xxxii, p. 104) who was operated upon in 1894 for cancer of the uterus. She is now, fourteen years after the original operation, suffering from an undoubted recurrence.

But questions of recurrence, its causes and course in cases like these, I do not wish here to discuss. I mention them to show why I have been at times filled with doubt as to the permanency of my operative cures and why, even in the most favorable cases, it is difficult to avoid a certain amount of discouragement in advising the surgical treatment of malignant neoplasms.

Is there, in a large experience with malignant disease, something which is unavoidably disheartening, and does that experience lead invariably toward pessimism?

There surely is this tendency and it is a perfectly natural one, because the failures, even under the best conditions, vastly outweigh the successes. It is much more difficult in our profession to forget unfortunate occurrences than to remember fortunate ones. Furthermore, those who have been fully and permanently restored to health forget us. They are not eternally dinning it in our ears with tears of gratitude that

we have saved their lives and that they can never, never in this world repay us. A very few do thus remember us, but the recurrent cancer brings the patient back to us in grief, fear and, too often, in dissatisfaction, and we endure disappointment, chagrin and sometimes remorse. Moreover, we are compelled to suffer these ineffaceable emotions where, as I say, the pleasing ones are conspicuous by their absence. Could we, unaffected by the sorrows of failure, be influenced only by the joy of permanent health, the direct result of our best efforts, our treatment of malignant disease would tend strongly toward optimism. As it is, experience in cancer, for the reasons given, tends toward pessimism and we must needs resist this natural tendency because it leads too far. From the very fact that malignant disease is so bad, our present success is all the more wonderful and encouraging.

Almost as I write these words a patient comes to consult me for uterine hemorrhage fourteen years after extirpation of the left breast for medullary cancer. I had forgotten her entirely, her case had escaped the search in my records. She had not forgotten me, however, for she came to consult me as soon as she discovered the uterine hemorrhage, the first symptoms she had had since the operation in 1894. Cancer of the breast without symptoms of recurrence at the end of three years may be cured, or it may not; usually it is not. I do not look upon this arbitrary period of immunity as in the least indicative of permanent cure; it is only a hopeful sign, but when, at the end of fourteen years, a patient shows every evidence of splendid health, I admit that my hope in wide extirpation of cancer is greatly stimulated. In malignant disease so situated that wide-margin extirpation is impossible, I feel, as an anatomist as well as a surgeon, great discouragement. The prognosis is so grave that it seems hardly worth while to attempt such an operation as resection of the esophagus, even when that operation is quite feasible. A case like the one here reported, in which the pharynx was extensively involved in undoubted cancer, but in which complete extirpation was proved possible and efficient, lends hope to every patient with cancer of the deep neck. And in our combat with malignant disease we must undertake operation with hope if we undertake it at all; the half-hearted, what's-the-use dissection is worse than none. We must in cancer, more than in any other disease, call upon our favorable experiences and be influenced by them rather than by our unfavorable ones. And any surgeon who has done much operating knows well that some of his best results have followed operations undertaken with little hope. The surgeon should fight against the gloom which his experience in operations for cancer, as I say, naturally stimulates. Let him remember the good, magnify it if he can, while he minimizes the bad. Thus only will he gain a fair conception of the truth of the whole question.

Experience in general surgery surely does not lead toward pessimism, for if it did the surgeon

would feel the same depression in undertaking operations for all conditions. On the contrary, with increasing observations in operations for gallstones and appendicitis, his enthusiasm increases. Indeed, in surgery of all kinds, for all lesions except the malignant and for all conditions except that of neurasthenia, the results, both early and late, are wonderfully good and, to the extreme, encouraging. Unfortunately, after many years of surgery in cancer, there is only too good reason for this feeling of discouragement. Now, as my own familiarity with malignant disease becomes more intimate, I cannot but fall under its depressing influence. I easily, therefore, appreciate the attitude of Dr. Hodges, late in his brilliant career, when he gave it as his opinion that surgery was useless in most cases of malignant disease. (Address before The Massachusetts Medical Society in June, 1886.) I was determined, nevertheless, not to accept so depressing a view of this matter and I ascertained as far as possible the end-results in the patients operated upon at the Massachusetts General Hospital between 1878 and 1888. These researches showed, even at that time, the brilliant results of surgical operation in many forms of malignant disease.

Since that time surgery has, of course, added enormously to our knowledge and has wonderfully bettered our results, and yet, in many cases, the discouragement is quite as general as it seemed to Dr. Hodges in 1886. But in thus yielding to the accumulating impression of many years, are we not unwarrantably disheartened? Are there not many permanent cures which have been overlooked or forgotten and which an exhaustive search would reveal? I am sure that we hear more from the unsuccessful than from the successful cases and that unless we make the most vigorous effort we shall overlook many a brilliant and permanent recovery which has been forgotten in the apparently overwhelming majority of failures.

Many years ago I operated on a patient with a cauliflower growth of the cervix so extensive as almost to forbid operation. Dr. Gay, who sent her to me, has recently reported that she is living and well, without a sign of recurrence. I had taken it for granted that the disease had long ago proved fatal. Are there not many such cases? I am sure there is many a brilliant recovery after the most discouraging outlook. The trouble is, that we do not see or hear from our successful operations, because they are successful. I should have said, for instance, that cancer of the tongue was invariably fatal by early recurrence and that I myself had not had a single success, but for the testimony of the men who have been looking up the Massachusetts General Hospital cases. So it is in cancer of the rectum¹ and of other regions of the body; we seldom hear from the favorable cases, but, as bad news travels quickly, we are sure to hear from patients who are doing ill. In the total number of patients from whom we have never heard, is it not safe to assume that some, at

¹ I had hardly written this when I was informed by Dr. Clement, in Haverhill, that a patient of his, upon whom I operated some years ago for cancer of the rectum, is now perfectly well.

least, are without unfavorable symptoms? In searching for evidence, is it not, therefore, unjust to facts to assume that those patients who cannot be traced are invariably dead or that in their cases the disease has reappeared? Are not many patients living and well who have been lost sight of?

In the early '80's I removed from a woman of middle age by dissection through the neck a sarcoma of the tonsil. Some years later I wrote to friends of this patient in Pietou, Nova Scotia, asking for date and particulars of death. The patient herself replied, but with indignation that I should even have suggested her death. She said that she had never been better than she was at that moment.

That we have had good reason for discouragement in the treatment of malignant disease is only too true, but is it not also true that in the future we have good reason for encouragement? One of the elements of hope lies in cases like the one reported in this paper, cases that were undertaken with much reluctance and with little hope, but which have proved brilliantly and permanently successful. Such cases cannot but encourage us to renewed efforts at the expense of extensive dissections, permanent deformities and serious disabilities, even in regions thus far forbidding.

Mrs. D. P. J., aged forty-seven, was referred to me on Nov. 5, 1902, by Dr. Farlow. Except for rheumatism in the legs she had always been well until four months before this time. In July, 1902, she began to have spasms in the throat. The spasms increased in severity until four weeks before her first visit to me, when she became unable to swallow solid food.

Dr. Farlow had found nothing in the nose or in the fauces. The vocal cords were unaffected; there was nothing abnormal in the larynx. In the pharynx there was a large, sloughing mass, a fragment from which was pronounced by Dr. Whitney to be epithelioma.

I found the pharynx to be filled by a fungous mass which prevented the swallowing of anything but liquids. The mass could be touched with the fingers, but could not be seen without a mirror. It was attached by so broad a base that a large part of the posterior and lateral walls of the lower pharynx were involved; so large a part, in fact, that extirpation was impossible without complete destruction of the power of swallowing. Indeed, it was a question how much the passage of air through the pharynx and into the larynx would be impeded.

The growth is described in my records as a sloughing tumor in the posterior pharyngeal wall.

The outlook for permanent cure in this case seemed about as discouraging as it could, judging by the usual results of operation upon cancer in inaccessible regions or in regions which do not permit removal by a wide margin of safety. I had had, however, encouraging success in one or two pharyngeal and tonsillar tumors. Moreover, the complete filling of the pharynx made some operation immediately imperative. Resection of the pharynx or esophagus presents no great technical difficulties. In any event, if worst came to worst, breathing could be provided for by permanent tracheal tubes and nourishment by gastrostomy. We therefore decided to make an attempt at complete extirpation, and, failing in this, to give at least temporary relief.

The operation was performed at the Eliot Hospital

on Nov. 15, 1902. Dr. D. F. Jones, at that time my first assistant, described the operation as follows:

"An incision of six inches was made from the angle of the jaw downward along the anterior border of the sterno-mastoid muscle. At this time the patient began to breathe so badly that a tube was put into the trachea. The dissection was then carried down to the pharyngeal wall. This was difficult to get at because the enlarged thyroid gland extended almost entirely around the esophagus and up onto the pharyngeal wall. The pharynx was then opened. The tumor occupied the entire posterior wall and extended well around onto both sides. It also extended down into the upper part of the esophagus. The whole tumor was cut away, with a margin of from $\frac{1}{4}$ to $\frac{1}{2}$ inch. This left but a very narrow strip of mucous membrane on the left side of the pharynx, about $\frac{1}{4}$ inch wide. Such a large area of mucous membrane was removed that there was nothing to be done but to bring the edge of the esophagus out and suture it into the wound. The bleeding points were tied with catgut and the denuded area of the pharyngeal wall was packed with gauze. Before the esophagus was sutured to the skin a chain of enlarged and hardened glands running into the mediastinum were dissected out. The lower and upper parts of the wound were closed with silkworm gut sutures."

The patient was fed very satisfactorily through a rubber tube left in the esophagus. Convalescence was uninterrupted and complete. The patient quickly became accustomed to the esophageal feeding, by which she was easily and adequately nourished and her strength fully maintained. Life was full of enjoyment to her and was well worth living.

Technically the operation was to me very pleasing. Exposure of the pharynx and esophagus is always an interesting anatomical procedure. Serious interference with respiration under complete anesthesia may be encountered in the beginning, as in this case, but the surgeon may always be sure of his patient's breathing the moment the pharynx is opened and the larynx free.

Removal of the growth was possible because it had not infiltrated or passed beyond the pharyngeal tissues. The chain of lymph nodes extending into the mediastinum excited most apprehension and made dark the outlook for permanent cure. However, as Dr. Whitney shows, these nodes, though enlarged, were not infected with the disease.

Dr. Whitney's report was as follows:

The specimen from the pharynx of Mrs. D. P. J., Eliot Hospital, Nov. 15 (C. 211-6), consisted of a fungous papillary new growth about 4 cm. in diameter and $\frac{1}{2}$ cm. in thickness. The surface was composed of coarse, papillary projections, the base solid in character and quite sharply marked from the subjacent tissue.

With the above were two small pieces which showed a slight papillary thickening on the surface.

Microscopic examination showed solid masses of large flat epithelial cells which covered papillary projections on the surface, and a round-celled tissue which had infiltrated the muscular fibers at the base. In places these cells were in horny, imbricated whorls.

Microscopic examination of the two small patches showed a commencing growth of a similar character.

A lymph node which was also removed did not show any evidence of the new growth.

Diagnosis. — Papillary epithelioma.

Yours very truly,

(Signed) W. F. WHITNEY.

This patient went to Brooklyn to live. She was seen in 1903 by Dr. Dennis, of New York, who found no return of the disease.

On Dec. 29, 1906, she was examined by Dr. Brothers, of New York, who reports: "There is no evidence of

recurrence (I assume that the original condition was one of malignancy) and, in spite of the fact that she is nourished through the artificial opening in the neck by means of a tube and liquid food, she presents a well-nourished appearance. Her only annoyance just now is a troublesome cough, which seems to have no connection with her former trouble."

Another letter received from Dr. Brothers this fall is as follows:

112 EAST 61ST ST., NEW YORK,
Sept. 21, 1908.

My dear Dr. Richardson, — I have seen Mrs. J. a number of times since my communication to you, and certainly must congratulate you on a good piece of work. Although she suffers from bronchitis and a tendency to asthma, her general nourishment is excellent. She attends to her household affairs and acts as cashier for one of her husband's ventures at Coney Island. She is a large-built, heavy woman, who surprises me by apparently not losing in flesh or weight in spite of (1) the diagnosis of malignancy made at the time of your operation and of (2) being exclusively fed on liquid food through the esophageal tube.

Very sincerely,

A. BROTHERS.

Brought daily into intimate contact with malignant disease, the surgeon may become so accustomed to its manifestations that he is no longer impressed by what he sees. He proceeds along the beaten track, influenced too much, perhaps, by early ideas and too little by late ones. He assumes that there is no use in this or in that procedure, he insists that this case is inoperable, because that one proved inoperable. He declares, when he has been drawn into a hopeless and fatal operative tangle, that he will never permit himself to be drawn into another. He becomes blind to conspicuous things, he fails to observe the difference between the well-defined, localized and movable tumor and the infiltrating tumor immovably blended with surrounding tissues. Furthermore, he is too inclined to make major deductions from minor premises, to judge the results of ten years from one or two unfavorable cases. As I write, information as to my results in cancer of the breast, in cases operated upon within the last twenty years, is coming in, with descriptions of permanent cures that are very encouraging. Judged by the recurrences and deaths I had already recorded, surgery had begun to seem as inefficacious in cancer of the breast as in cancer of the rectum. But here come reports of cases of ten or fifteen years' standing in which the patients are in perfect health and comfort. So it will, I think, prove in cancer everywhere if we undertake operative treatment with hope, but so it will never be if we undertake it with a half heart and with the full expectation of failure.

I have observed, as all operators must have observed, the efficacy of certain anatomical barriers to the spread of cancer. The most unyielding obstacle I have ever demonstrated is the dura mater to the internal progress of epithelioma. I have seen the dura mater make an efficient resistance to cancer which had successively destroyed the cheek, the eye, the scalp and the bone,

and which had fastened itself, by a palm's breadth, upon the dura's outer layer. Removal of the dura showed an infiltrated outer layer and an internal (arachnoid) surface apparently unaffected. In anatomical tubes like the pylorus, the intestine (small and large) and the rectum, the disease seems for a long time effectively restrained from spreading into contiguous tissues, just as it is in the dura mater. The rectum, for example, is infiltrated to the prostate and seminal vesicles and no farther, though the disease has spread laterally and longitudinally. The pylorus is extensively infiltrated, but for a long time not beyond the peritoneum.

In metastasis formation the clinical evidence is sometimes inexplicable. Cancer of the uterus is almost never associated with metastases in the liver. Rarely is an infected lymph node found in the pelvis. In some cases of mammary cancer lymph nodes in the axilla are early and extensively diseased; in others, slightly and late. Sometimes there is very little to be felt in the axilla and much in the breast; at other times, much in the axilla and little in the breast.

It is not well to assume, therefore, that cancer is hopeless, even in such a place as the pharynx or the esophagus, so long as cases like the one here reported are met with. Provided that the disease permits removal without inevitable death and without sufferings which are worse than the disease, our present method of treatment by the broadest possible excision should be followed, in spite of reverses and discouragements. Much as is to be hoped from the treatment by serums, toxins and ferments, little is, I fear, to be expected with confidence. Much as I should welcome an era when cancer would no longer be regarded as a surgical disease, I feel that the time has not yet come when we can relax in the least our vigilance, nor has the time come when we can trust cancer in its operable stages to any method of attempted cure other than surgical excision. I have seen so many operable and favorable cases drift, under x-ray, toxins and other loudly-heralded cures, into inoperability and death, that I am sure we must confine new methods, like the use of trypsin and amylopsin, to the inoperable cases. For the few authentic x-ray cures of cancer in its simple and superficial forms, like epitheliomata of the face, I have seen hundreds of patients who, under the dread of the knife and the encouragement of the x-ray, have drifted into hopeless inoperability.

The case herewith reported, which I had well-nigh forgotten until the receipt of Dr. Brothers' letter, is one of those which cannot but encourage the surgeon to renewed efforts along present lines of treating the carcinomata in apparently hopeless situations.

BURSITIS SUBACROMIALIS, OR PERI-ARTHRITIS OF THE SHOULDER-JOINT. (SUBDELTOID BURSITIS.)

BY ERNEST AMORY CODMAN, M.D., BOSTON.

(Continued from No. 18, p. 582.)

PROGNOSIS.

BEFORE considering treatment it is well to consider prognosis. In some diseases it is almost as well to know the prognosis as to know the appropriate treatment. This is particularly true in the lesions of the subacromial bursa. Many cases consult a physician because they are anxious to know what their trouble is, and having had the condition explained to them, and having been told that in course of time improvement is almost sure to come without treatment, prefer to wait for relief rather than to seek it.

In such cases the fear that some unknown trouble is beginning has certainly much to do with the suffering experienced. Improvement frequently begins from the date that the diagnosis is made, especially as it is a fact that these symptoms are more noticed in high-strung, nervous, apprehensive individuals.

The prognosis in Type I, the acute cases, is very favorable if the course of the lesion is not interfered with by misdirected treatment. In my experience these cases seldom continue more than a few weeks if a judicious course between too vigorous exercise and too prolonged fixation is followed. Prolonged fixation, either voluntary by the patient in order to avoid pain, or involuntary by apparatus designed by the physician to give support and rest, is the usual cause of delayed recovery. Of course, in cases where the cause is particularly acute, such as those complicating fractures or gonococcus infections, the spasm itself maintains fixation so long that adhesions and atrophy of the short rotators follow.

The prognosis in Type II, the adherent cases, is the most serious, but it is fairly safe to say that even without treatment the disability seldom lasts over two years. Most cases that I have seen have come under observation between six months and one year from the date of onset. I have never yet seen one where the patient complained of disability after three years, but in a few instances, in making examinations for other lesions, I have noticed shoulders which showed restricted motion and some muscular atrophy due to a previous lesion which probably was of this nature.

From my experience I believe that even severe adherent cases (provided no secondary contractions have occurred in the muscles of the forearm) will recover of their own accord without treatment in from one to two years, and in favorable cases in from six months to a year.

The prognosis of cases of infective or insidious origin is not so good as in traumatic cases.

The prognosis in Type III, chronic cases, in which the mobility is not affected except at certain angles in the arc of motion, is, on the whole, good. The symptoms may abate or disappear at intervals and return again after several months.