CANCER OF RECTUM*

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Cancer of the rectum and colon has increased one hundred per cent. in the past fifteen years according to the report of Vital Statistics of the Registration Area of the United States. Bloodgood has well said that in the life history of every malignant growth there has been a moment when it was surgically curable and the lesions under consideration offer no exception to this admirable axiom. To recognize and to seize upon this precious moment is no less than to control the life destinies of the affected individual.

Results of Surgical Treatment.—Of 491 cases studied we have operated upon 335. The hospital mortality was 16 per cent. Forty-one have lived one year; 45 two years; 33 three years; 22 four years; 26 five years and 17 six years.

Patients not replying to circular letter have been classified as dead when last heard from. As in all clinics situated in cosmopolitan centres where the population is in constant flux, it is impossible to follow a large number of the patients. Thus the statistics as above created are necessarily less favorable than if every case had been followed to date.

Whatever disability exists as results of operation does not interfere with livelihood gaining. One of our patients who was bankrupt when his rectum and sphincter were removed, and who leaks at times, now makes four trips to Europe and has earned over a million dollars since operation. We cannot overemphasize the plain fact that post-operative conditions, no matter how unfavorable as to function, do not interfere with the usefulness or economic independence of the patient.

Incontinence is a relative term. Its importance has been grossly exaggerated. As no horse is sound, so no human body is without defect, and even great defects are compensated for by the natural endowment of the individual to meet such obligations. It is simply a question of getting used to the discomforts of a colostomy or a leaking anus—a psychological phenomenon well worthy of consideration. Think of the innumerable women torn in childbirth who have been incontinent for a quarter of a century, yet who efficiently and without affront to their families perform their daily work. Because of this psychological element we strongly prefer to have a relatively incontinent normal anus rather than upon the abdomen. This, briefly, is the result of surgical therapeusis in our series.

What stronger argument could there be for discussing the diagnosis and the indications? These statistics show that rectal cancer operated upon even after great delay and by poor methods is not hopeless. If with these

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limitations we get results, how important, therefore, is the early diagnosis and how promising the outlook for the future.

What have been the methods of study in this series of 491 cases? Of first importance is a flat contradiction of some still prevailing convictions, to wit: That the operation is hopeless; that the cancer patient is cachectic or has lost weight; that age is of importance; that pain is a prominent symptom and that a tumor can always be felt. The very occurrence of these symptoms spells inoperability.

What are the important symptoms from the modern standpoint in order of diagnostic and therapeutic importance?

First, constipation: This we believe to be the very first and earliest of all symptoms. It is undoubtedly protective in type, being perhaps the result of biologic reaction to the influence of the new-growth. There are, however, several hypotheses as to its origin depending upon the path of inhibitory

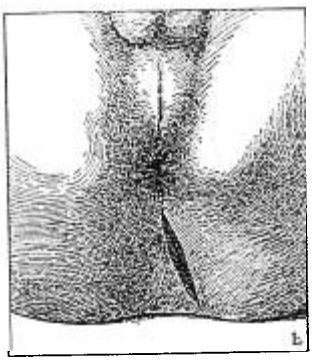

FIG. 1.—Shows where the first incision should be made when performing a perineal operation.

transmission rather than upon its origin or occurrence. Of the latter and of its protective nature there can be no doubt. Certainly it is not due to mechanical obstruction of the growth.

Second, stomach symptoms: We have repeatedly referred to these as esoteric as contrasted to hemorrhage and the like which are exoteric. Chronic indigestion, so frequent a sign of peripheral pathology, is just as significant of rectal cancer as of a chronic appendix.

Third, blood or bloody stools: This is usually the first exoteric sign. It can occur without ulceration, in which case it may be due to a blocking of the return circulation in the valveless veins leading to the liver. In any event hemorrhage so commonly associated with cancer (10 per cent. of our cases of 491 had been operated upon previously to our seeing them for hemorrhoids) is a frequent source of the blood. In a large proportion of the cases, however, it is due to ulceration.

Fourth, frequent and imperative desire to move the bowels followed by explosive discharges of gas, blood and mucus: This symptom is usually spoken of as the diarrhœa of cancer. It is not in reality a diarrhœa in that fæces are rarely passed.

These are the classical symptoms which every gastro-enterologist should know. Other symptoms occasionally noted are an indefinite pelvic discomfort and pain or tenderness over the cæcum which has been mistaken for right-sided pathology.

DIAGNOSIS.—A patient presenting any one of the above symptoms should have a rectal and proctoscopic examination as a matter of routine. In our series of 491 cases, 56 per cent. of the tumors were within 7.5 cm. of the anus; 69 per cent. were within 10 cm. of the anus, and 31 per cent. were oral to this. It is quite evident, therefore, that more than a half were within

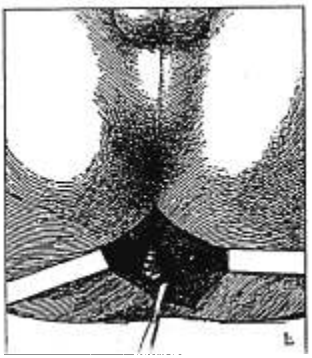

FIG. 2.—Illustrates the method of removing the coccyx.

reach of the finger, that two-thirds could have been diagnosed under anæsthesia by the finger, and that all except the sporadic cases in the colon could have been diagnosed by the proctoscope.

Duration of symptoms in this series was eight months. During this period many of the cardinal diagnostic symptoms already referred to had been present, so that at any time a diagnosis could have been made had the patient been examined.

Age.—In our series of 491 cases 4 per cent. were under thirty years of age; 7 per cent., thirty-five. According to the United States Bureau of Vital Statistics 5 per cent. of cases of rectal and colonic cancer were in children under nine years of age, 2.75 per cent. under nineteen years, proving that cancer is not confined to any age and that, while it occurs more frequently in middle life, still, for all, we must recognize the danger of placing too much importance on age.

A word must be said regarding the pernicious habit of biopsy for diagnosis. At the Symposium on Inoperable Cancer of the New York Academy of Medicine, Dr. Robert Abbe remarked that in the treatment of carcinoma by radium, the biopsy wound itself was one of the last to heal and was very stubborn.

TREATMENT.—*Operability.*—In our series of 491 cases extending over a period of nineteen years, 153 were considered inoperable. Of great importance is the history of the advance of our technic and a more liberal understanding of the possibilities. From a study of unexpected results in many so-called inoperable cases we are convinced that even in the late cases, except when the peritoneum is involved, there is always a fighting

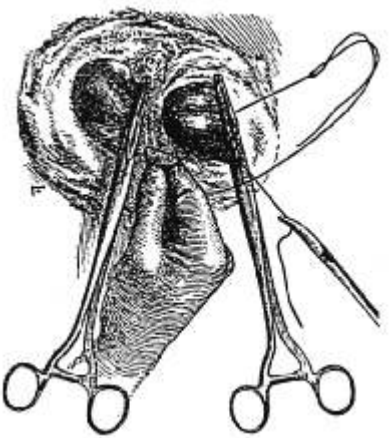

FIG. 3.—Illustrates the technic to be followed for dividing the bowel, when it is intended to leave the patient with a permanent colostomy and subsequently to remove the aboral portion of the sigmoid and the rectum.

chance. Of the 153 cases considered inoperable, none have been so classified because of the extent of involvement in the rectum itself.

Our operability for the total number is 60 per cent. This high percentage is due to the fact that Doctor Tuttle kept no record of inoperable cases. By operability is understood radical extirpation of the growth. In the past five years our operability has risen to 74 per cent. Let it be clearly understood that this refers to growths strictly localized in the rectum. As to the indications for radical treatment; when adjacent organs are involved our statistics show that we have often removed a part of the vagina, a part or whole of the prostate, seminal vesicles, urethra and uterus, several coils of intestine and part of the bladder. In many instances it is necessary to perform an exploratory laparotomy to determine whether the growth is operable.

Choice of Operation.—Operable cases: (1) Combined; (2) perineal; (3) abdominal.

We have performed the combined operation 111 times; in 36 of these cases it was performed in two stages. It is our operation of choice.

The perineal has been performed 102 times; the abdominal 20 times. Formerly we used the following operations now in disuse: Kraske, 20; modified bone flap, 32, and intrarectal, 18. When possible, for the psychical reasons already described, we always place the anus at the normal site. We prefer to perform the operation in one stage if it is possible, but, if necessary, we divide it into two stages.

The perineal operation is our operation of choice in very fat or in extremely debilitated people (Fig. 1). In all cases, as a matter of routine, we always remove the coccyx (Fig. 2). Preliminary colostomy is always done

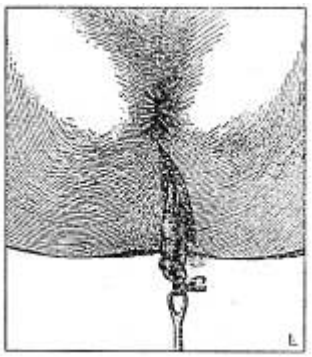

FIG. 4.—Illustrates the method of invaginating the proximal end of the aboral sigmoid and rectum.

when the growth is within 2 cm. of the anus, in order to prepare for the extensive removal *en bloc* necessitated by lymphatic involvement.

We have for some time abandoned rectal resection for the reason that in all of these cases the operation was followed by stricture. This is due to the presence of a terminal blood supply in the rectum rather than, as commonly supposed, to the absence of peritoneum. Exceptional work on dogs has been done by Barber which has confirmed us in this belief. It is the ischæmic rather than the peritoneal denudation that produces the stricture. It is axiomatic that the amount of scar tissue is in reverse ratio to the blood supply. This important contribution will form the basis of a subsequent paper.

Palliative Operative Treatment.—What can be done in this type of case is still of great importance. Until earlier diagnoses are made many cases will continue to fall in this class. If this paper served no other purpose than to convince the profession of the necessity of early colostomy in

inoperable carcinoma of the rectum it will have done some good. The fixed attitude toward colostomy is that it should be postponed until obstruction supervenes. This is certainly not in accord with the facts as we find them in 36 cases for cancer alone and in over one hundred for other conditions. It can be done, if necessary, under local anæsthetic.

What are the advantages of early colostomy in inoperable cancer as opposed to the supposed disadvantages? It reduces the inflammation, often converting an inoperable into an operable case. It obviates intestinal obstruction and its accompanying symptoms of pain, constant secretion and defecation, permits rest and sleep and insures recuperation. The patient renews his normal routine as to habits and diet. It stops hemorrhage. In short, it places the parts at surgical rest. If early it is without notable mortality; if late this rises to 40 or even 50 per cent.

Local Cauterization.—This is frequently of great value; it stops pain and limits secretion and odor. If frequently repeated it may keep a patient alive for many months.

Treatment by radio-active substances, fulguration and by biochemical derivatives is not here considered.

CONCLUSIONS

1. We would urge that digital and proctoscopic examinations be made routine in all patients presenting gastric or intestinal symptoms. If this is adapted a great many cases will be diagnosed early and saved.

2. That all cancer cases should be referred to a surgeon, as he is best fitted to pass judgment as to whether they are suitable for operation or not.

3. If inoperable, colostomy should be performed as soon as possible, thereby saving much suffering and discomfort.

4. That no patient should be denied a radical operation until it is proved beyond doubt that it is not justifiable.

5. That our technic is now more perfect and consequently we are saving many cases which previously died from shock and peritonitis.