

Einhorn

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MANAGEMENT OF MALIGNANT
DISEASE OF THE DIGESTIVE
SYSTEM.

BY
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THE EARLY RECOGNITION AND
MANAGEMENT OF MALIGNANT DISEASE OF
THE DIGESTIVE SYSTEM.*

BY MAX EINHORN, M. D.

MALIGNANT diseases or growths of the digestive tract comprise the different types of cancer and sarcoma. As the latter are much less frequent, and usually present similar symptoms and consequences as the former, we will limit our remarks to cancer.

Cancer has always been recognized as the gravest of diseases, bringing with it the surest prospect of death. This axiom remains true even to-day, with the only difference that we must add, "if not interfered with surgically."

Surgery has indeed achieved its greatest triumphs in the removal of malignant diseases (tumors) in their early period of development, thus checking their further spread. Cancer of the breast and of the uterus are nowadays operated upon usually with a fair chance of non-recurrence of the growth.

* Read before the Fifth District Branch of the New York State Medical Association, at its fifteenth annual meeting, held in Brooklyn, May 23, 1899.

These successful operations show that cancer is primarily a localized and not a systemic disease, as was formerly believed.

The more deeply the malignant growth is situated, the more difficult becomes its recognition and the less fruitful, even its surgical treatment. For cases of non-recurrence of malignant diseases of the digestive tract (with the exception of the anus and rectum) are as yet extremely few. This, however, is not the surgeon's fault, but rather that of the clinician. For, judging from analogy, malignant tumors, if discovered early enough, should be just as successfully removed from the digestive tract as elsewhere. It is, therefore, the just aim of the clinician to perfect his diagnostic ability with regard to malignant disease.

The stomach tube, and in conjunction with it the chemical analysis of the gastric contents have marked a decided advance in this direction; transillumination of the stomach may also, in favorable instances, be of some service. But we must concede that our methods are still comparatively crude, and as a rule permit us to recognize the malignant affection at a stage when it has already progressed to a considerable extent.

Before discussing the diagnosis it may not be amiss to make a few remarks with regard to ætiology.

The ætiology of cancer has been investigated by numerous scientists all over the world. But, unfortunately, the goal has not as yet been reached. Cohnheim's theory of the origin of tumors by embryonic cells which have remained dormant and at a certain period awake with renewed energy to attain gigantic development, is known to us all. A similar theory has been

recently propounded by Ribbert, who assumes that a tumor develops from cells which accidentally have strayed from their place of origin and have been carried into some other tissue. Being foreign elements they extend their growth, not heeding the neighboring organs. Neither of the two theories has found general acceptance. Sporozoa have been believed by some writers (Pfeiffer, Hutchinson, Park, Metschnikoff) to be the cause of cancer. But these so-called parasites which have been discovered in cancerous tissue are most probably nothing else than degenerated and dried-up portions of cells, and nothing has as yet proved their real parasitic nature.

One factor which, though not directly concerned in the origin of cancerous tumors, creates a decided predisposition for their development, is repeated irritation. This ætiological factor has been established through numerous statistics, and it seems to me to be most pronounced in the digestive tract. Those places along the digestive canal which are subjected to the most marked mechanical irritations are also most often the seats of malignant disease. Thus the stomach, which receives the food in a comparatively coarse state and is exposed to great mechanical as well as chemical irritations, is, according to Virchow, the organ most often attacked with cancer. And here, again, the cardia, and especially the pylorus, are chiefly involved. The cardia is subjected to the friction of the food passing through it, while the pylorus is constantly irritated by the acid chyme as well as by some coarse particles of food which, by the churning motions of the stomach, are constantly carried toward that outlet without passing it. The small intestine, through which the chyme

passes in its greater part in liquid form, is very seldom attacked with cancerous disease; while the large bowel, in which the fæcal matter assumes a more solid consistence, shows already a greater percentage of cancerous disease. These relations are best demonstrated by the statistical data given by our worthy president, Dr. J. D. Bryant. In a hundred and ten autopsies of patients suffering from intestinal cancer this writer found the neoplasm located six times in the small intestine, seven times in the cæcal and ileo-cæcal regions, nineteen times in the transverse colon, and seventy-eight times in the sigmoid flexure and rectum.

I shall now describe in a cursory manner under what conditions the diagnosis of cancer of the different parts of the digestive apparatus is justifiable:

I. *Œsophagus and Cardia*.—Gradually developing dysphagia and the presence of a stricture in the œsophagus, especially if a particle of tumor showing the characteristics of cancer has been brought up with the tube, or the above symptoms, with frequent small hæmorrhages, make the diagnosis of malignant disease positive.

II. *Stomach and Pylorus*.—With reference to the stomach and pylorus I* have suggested the following rules upon which to base a positive diagnosis of cancer:

1. If particles of tumor are found (in the wash water or in the tube) which under the microscope reveal the characteristic picture of a malignant growth.
2. The presence of a more or less large tumor with an uneven surface, belonging to the stomach and associated with dyspeptic symptoms.

* Max Einhorn. *Diseases of the Stomach*, first edition, p. 273.

3. The presence of a tumor associated with frequent hæmatemesis.

4. Constant pains, frequent vomiting, ischochymia, emaciation—all these symptoms being quite permanent and not extending over too long a period of time (six months to a year).

5. Tumor and ischochymia.

6. Emaciation, ischochymia, presence of lactic acid.

7. Constant anorexia and pains, not yielding to treatment, accompanied by frequent small hæmorrhages of coffee-ground color.

III. *Small and Large Intestines.*—For the small and large intestines the following points will prove of service in making the diagnosis of cancer:

1. If by abdominal or rectal palpation a tumor can be detected which is situated in the small or large bowel, and accompanied by symptoms of cachexia and disturbances of defæcation.

2. The presence of a tumor as just described, and the discovery of small particles of the neoplasm in the evacuation giving microscopically the appearance of a cancerous growth.

3. Gradually increasing disturbances of the bowel for a few months in a heretofore healthy person, accompanied by cachexia and symptoms of a beginning or already developed stricture of the bowels, and the presence of a small particle of growth in the stools giving, as above, microscopically, the picture of cancer.

After having thus summarized the conditions under which a positive diagnosis of malignant disease of the digestive system can be made, let us see how the diagnosis can be established early. There are no new points which I can suggest for this purpose. A thorough

examination of the physical state of the patient—paying strict attention to all our usual methods in this direction—and a full knowledge of the history of the case, will permit us to discover malignant disease comparatively early. In quite a number of instances we shall not be able to make a positive diagnosis of cancer, but our suspicions of a malignant trouble will be aroused. Here frequent examinations and further observation of the case are of intrinsic value. Sometimes examination under narcosis may afford better results. In rare cases, in which a *probable* diagnosis of malignant disease can be made, an exploratory laparotomy with the view of establishing the diagnosis and performing a radical or palliative operation will be required.

Having made the diagnosis of malignant disease, the question arises, What shall be done for the patient? The following may be given in brief as an answer applicable to the digestive system in general:

1. Whenever the tumor is accessible for operation, and there is the slightest hope of curing the patient, the complete extirpation of the growth should be performed.

2. If the tumor is not accessible for operation, or the entire removal of the malignant disease is practically impossible, palliative operations which serve to alleviate suffering and prolong life should be undertaken in cases requiring them.

3. Cases of malignant disease operated upon, as well as those without operation, require for their treatment and management a skillful physician, who is able to lessen suffering and nearly always also to lengthen life, even under the most trying conditions.

After these general statements, permit me to say a few words with regard to the special management of malignant disease in the different portions of the digestive tract.

Cancer of the œsophagus and cardia does not for the present permit of any radical operation. As soon as the diagnosis is positive and the dysphagia is such that the patient is not able to partake of sufficient liquid and semiliquid food, in order to maintain his weight, gastrostomy should be performed wherever feasible.

Cancer of the stomach and the entire intestinal tract should be operated (*i. e.*, removed), if discovered early enough. Practically the outlook for a cure after a radical operation of some portion of the intestinal canal becomes less encouraging the farther away from the anus the tumor is situated. Malignant disease of the pylorus can often be recognized quite early through the ischochymia which it usually produces. In these instances a laparotomy should be performed as soon as possible and the pylorus resected, with establishment of a new communication between stomach and duodenum if possible; if not, a gastroenterostomy alone should be made. The latter operation is in many cases of decided benefit, facilitating nutrition and rendering the pains less.

Cancer of the lesser curvature of the stomach or of the posterior wall is usually recognized quite late, rendering radical operations practically impossible. If cardia and pylorus are not involved, there will be no need of any operation, and the usual palliative remedies should be administered. The same may be said also of cancer of other portions of the stomach not in-

volving either cardia or pylorus, in which a radical operation does not appear possible.

Cancer of the rectum can be recognized at an early stage, and resection of the neoplasm is here accompanied by brilliant results. If the tumor is located farther up in the large bowel or the small intestine the results of an operation are not so promising, for here the recognition of the growth is possible only at an advanced period, and by that time often adhesions with other organs and cancerous infection of the glands have already taken place.

Excision of the tumor and resection of the intestine in the neighborhood of the neoplasm, with an end-to-end anastomosis, should be practised whenever feasible. In case, however, total resection is impossible, an entero-enterostomy or enterocolostomy, or, if the cancer is situated in the rectum, a colostomy (artificial anus) will be of benefit. These operations are palliative in nature and prolong life, at the same time making it more comfortable. They are intended to allay the symptoms of obstruction and to carry the fæcal matter over a new route, not passing through, and thus not irritating the cancerous area. In some instances of inoperable cancer of the rectum curettage, followed by the application of the thermo-cautery, may be of benefit for a short period.

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