THE SPREAD OF CANCER IN THE LOWER PART OF THE LARGE INTESTINE.

(WITH SPECIAL PLATE.)

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IN the BRITISH MEDICAL JOURNAL, 1910, vol. i, pp. 853 and 922, Mr. Sampson Handley published a case of very extensive spread of cancer in the lymphatic vessels of the submucous tissue in the lower intestine. Like many others, I was at once struck with the importance of this observation, and at the same time realized from my own clinical experience that this extensive spread in the lymphatics of the submucous tissue of the large intestine could not be applicable to all cases. Therefore I determined to examine all my subsequent cases with a view to the determination of this point.

I began by attempting to cut transverse sections of all the tissue I removed from these cases, but as I proceeded I found the number of sections would run into several hundreds for each case; therefore I decided to cut longitudinal sections on my big microtome, and the curve which will be seen in the longest sections was made to accommodate the tissues on its stage. The concavity of the curves represents the peritoneal surfaces in Figs. 1, 8, 6, and the mucous membrane in Figs. 2 and 7.

The cases which I publish are all cancers of the lower part of the large intestine, and they show how strictly limited is the growth of the primary focus of disease. Very little spread can be seen in the submucous tissue of any of them. Indeed, there is no spread to be observed in any other part of the bowel wall.

In one of my cases—namely, that represented in Fig. 8—there is a most alarming diffuse spread in all directions, namely, in the submucous tissue, the intramuscular tissue, the intermuscular tissue, and subperitoneal tissue, as well as in the lymphatic glands in the mesocolon. Even the appendices epiploicae are loaded with it; in fact, every available lymphatic space seems to be occupied. This appears to me to be an exceptional case.

Before publishing these cases I made a point of informing Mr. Sampson Handley of their nature, and he informed me that he has had the same experience in cases he has examined since the one which caused such disturbance in the minds of surgeons who read his paper.

In the majority of my cases I have not seen the submucous spread greater than that seen in the extramural lymphatic distribution.

I have no doubt that the publication of Mr. Sampson Handley's case has influenced surgeons to remove a greater length of bowel than is absolutely necessary in most cases. On the other hand, I quite agree that extensive removal is the main indication, for two reasons:

First, the operator can never be sure from clinical observation whether he be dealing with a case of extensive or limited distribution, although the presence of enlarged

and discrete lymphatic glands may help him to decide the matter in favour of the presence of extensive spread of cancer.

Secondly, an extensive removal of the intestine enables the operator to deal more effectually with the lymphatic area in direct communication with the diseased parts.

The spread of the disease in the bowel will be seen in Figs. 1, 2, 3, 4, 5, 6, and 7, and it does not support the view that wide removal of the bowel is essential for recovery in most cases. I would advise an extensive removal of the bowel where possible, but the results of the examination of my cases gives definite scientific reason to hope for a successful issue from a more limited removal of the intestine in cases which are obviously unfit for extensive and dangerous operations. As a matter of fact, as a direct result of these observations I have successfully treated cases which were not fit for wide and radical surgical measures.

It may be said that if my sections 1, 2, 5, 6, and 7 had been transverse instead of longitudinal, the submucous spread of the disease might have been demonstrated, especially as I point out in Figs. 3 and 4 the submucous spread has been demonstrated, and the submucous spread in Fig. 8, with many other directions of distribution, is shown to be very great. But I feel sure the observations I have made upon the longitudinal sections are correct, for many sections were cut in each case and carefully examined. Moreover, in Figs. 3 and 4, which are reproductions of transverse sections, the disease was limited to the parts removed.

I have very great satisfaction in knowing that my experience is borne out by the more recent observations which Mr. Sampson Handley has made.

I could add many more cases in which the lymphatic glandular infection was absent, but they would not include observations upon the submucous spread, as they were examined before

DESCRIPTION OF SPECIAL PLATE.

Fig. 1.—Longitudinal section (natural size) of lowest part of large intestine. A, Anus; B, cancer; C, a submucous lymphatic vessel full of cancer cells. All sections made of this case gave no evidence of cancer involving any parts above C or below the lower indicating line leading from B. The patient from whom this tumour was removed died from shock of operation.

Fig. 2.—Longitudinal section of lowest part of large intestine (natural size). A, Anus; B, cancer; C, normal lymphatic gland. There was no spread of disease observed in any of the sections made of this case apart from the primary focus. The patient from whom this tumour was removed is well two and a half years after operation.

Fig. 3.—Transverse section of rectum (B) and surrounding fat (A) (natural size). It represents normal conditions, with the exception at C and C', where there are lymphatic vessels in the submucous tissue filled with cancer cells. The section of the rectum was taken 1½ in. above the cancer seen in Fig. 4. The patient was well four and a half years after excision.

Fig. 4.—Transverse section of rectum (B) (natural size) and the surrounding fat (A), which has undergone atrophy. The mucous membrane is replaced by cancer, except for about ¼ in. at lower and left hand part. The cancer has spread into the muscular coats. C, C', point to lymphatic glandular tissue not invaded by cancer.

Fig. 5.—Longitudinal section of part of the sigmoid flexure, removed for the relief of acute intestinal obstruction (natural size). A, is the cancer, which has spread to all parts of the bowel wall, and is involving the mesocolon at B. C is a normal lymphatic gland, D towards rectum, E towards transverse colon. In no section made of this case was observed any other spread of disease. The mesocolon was extensively removed. Patient well; operation five and a half years ago.

Fig. 6.—Longitudinal section of lowest part of large intestine (natural size). A, Anus; B, cancer. In no sections made of this case could any spread be detected apart from the distribution at the primary focus. The patient from whom this tumour was removed is well three years after operation.

Fig. 7.—Longitudinal section of rectum (natural size). A, Towards anus; B, cancer; C, a submucous lymphatic vessel containing cancer cells. C was the limit of spread among all sections cut of this case. Subsequent history unknown.

Fig. 8.—Transverse section (natural size) of sigmoid flexure. A, Lymphatic gland invaded by cancer not undergoing colloid degeneration; B, the intestine, which is invaded throughout all coats by cancer undergoing colloid degeneration; C, C', appendices epiploicae, which are similarly invaded. The patient from whom this tumour was removed died from shock of operation. I was unable to make complete investigations of this case.

Mr. Sampson Handley published his case.

The description of the distribution and the subsequent history of the cases will be found in the description of each section.

THE Prussian Ordre pour le Mérite has been conferred on Dr. Camillo Golgi, Professor of Pathology in the University of Pavia, and Senator of Italy.

THE late Dr. Clement Godson, formerly President of the British Gynaecological Society, left estate of the gross value of £48,492, of which £44,633 is net personalty.

THE American Society for the Control of Cancer issued the following timely note of warning as to the value of radium in the treatment of cancer: 'The American Society for the Control of Cancer fears that exaggerated ideas of the power of radium in the treatment of cancer may result from the recent publicity given to this agent in the public press. It appears highly important at the present time that the limitations of radium in the control of cancer should be emphasized, as well as the favourable effects in certain cases. Otherwise the familiar story of new hope destined only to disappointment will again be recorded at the expense of many unfortunate sufferers.'

FIG. 1.

FIG. 3.

FIG. 4.

FIG. 2.

TO ILLUSTRATE MR. G. L. CHEATLE'S PAPER.

FIG. 5.

FIG. 7.

FIG. 6.

FIG. 8.

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