ADVANCED CARCINOMA OF THE COLON WITH EMPHASIS ON THE INFLAMMATORY FACTOR

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FOR THE PRIVILEGE of wearing for an hour the mantle of Hunterian Professor I would thank the Council but let me say at once that this is not a learned lecture, nor is anything new being claimed. It is simply a record of clinical observation and personal experience with which I shall presume to take up your time, but no one was more insistent on the value of clinical observation than John Hunter himself.

It was in 1928, at the Cancer Hospital, now the Royal Marsden Hospital, that I began to wonder why some of the patients in the " chronic wards " lived for so long when they had been regarded as having advanced malignant disease. This was perhaps most striking in cases where a short circuit or colostomy had been carried out for advanced, fixed carcinoma of the colon. One very dignified old lady, known as "The Duchess," has remained vividly in my memory. She had more or less " ruled " the ward for many years. A colostomy had been performed 14 years before she eventually died. Her pelvis was " frozen " with growth, and the ureters blocked—but there were no distant metastases.

In 1900 Butlin wrote about colonic malignancies and said that 55 per cent. died when the growth was still a local disease—so unlike the case of gastric carcinomata where the figure given varies from 10 to 20 per cent. For the cure of many of the former all that seemed to be needed was a more determined surgical attack. Very advanced growths might be cured if the excision was wide enough and the involved structures could be spared, or perhaps, nowadays, replaced.

The Inflammatory Factor

Apart from being fired with a determination when the chance came to undertake more ambitious surgery, I was even more anxious to discover the explanation why life was sometimes so prolonged without any attempt at curative surgery. Such had been the bulk and fixity of the lesion that it had been regarded as inoperable when the original relief measure was carried out. In a recent article by G. V. Brindley cases are mentioned where, following colostomy and radiation, life had been prolonged for 10 years and more. It may be that without the radiation much the same result would have accrued—from colostomy only. If one refers to Dr. Cuthbert Dukes' presidential address of 1938, given to the Proctological Section of the Royal Society of Medicine, one will find a graph which illustrates the longevity of cases where only a colostomy was (at that time)

deemed possible. Nearly 20 per cent. were alive after two years and these had died by the end of the sixth year. I often wondered whether *all* these grew steadily worse, or whether some of them, for a time, improved both generally and locally.

That an inflammatory colonic condition can produce a very large fixed tumour is well known. In 1936 a young man of 32 was sent from a neighbouring town. The pelvis was "frozen," with a dreadful mass reaching almost to the anus. Even a colostomy had been ruled out as unjustifiable, the diagnosis having been advanced carcinoma. The man begged for help of any sort. We made a colostomy having failed to negotiate the lower colon which just narrowed and came to an end without evidence of growth or ulceration. You will rightly say—"diverticulitis!" We reviewed the local condition each month and gradually the mass resolved. In a year the rectum became mobile and it was easy to pass the sigmoidoscope. I remember this patient so well, partly because the managers of the firm with which he was foreman were so pleased about his recovery, that they insisted on paying for a nursing home and private fees for the ultimate closure of the colostomy! I would like to make the point that this man has remained well without resection.

Judging, then, by the bulk and fixation which colonic inflammatory swellings may assume, was it not possible that in some cases of carcinoma of the colon, secondary inflammatory changes may be considerable even while the malignancy factor is relatively small. So it was that we presently began to take a second look—not the Wangensteen second look—but what I like to call the Bristol one! May I describe just two early experiences? A woman of 62 was explored in February 1938. There was moderate obstruction and all the pelvic viscera so matted together in the neighbourhood of the growth that only a colostomy was possible. To-day, in a similar case, the Brunschwig procedure, not described until 10 years later, doubtless would have been considered. In August of the same year she was re-explored. The colon was now quite mobile—the bladder, uterus and small bowel seemed quite normal apart from a few flimsy adhesions. Resection was easy and the lady lived until she was 77 years old and died of other causes.

Then again, another woman of 39 in June 1942 was found to have a fixed mass involving the rectum, the sacrum or its periostum, the bladder and the uterus, so that only a simple colostomy was performed. By January 1943 the mass was smaller but still fixed. The abdomen being opened again, the growth was still regarded as "inoperable." Both internal iliac arteries were ligated. In December 1943 the abdomen was once again explored, for by now the growth, as judged by rectal examination, was freely movable. An abdomino-perineal excision of rectum was easily performed. The mass had decreased greatly and was now quite free from the bladder and uterus. Many glands were stated to be more or

less replaced by carcinoma of grades 2 to 3. To-day, this woman is perfectly well.

Mr. Ratcliffe of Derby tells me that he once did a colostomy in similar circumstances for a patient of very poor general condition. In many ways he improved and after *four* years the patient insisted on further surgery at whatever cost. The growth was readily mobile and an anterior resection perfectly feasible. Sir Hugh Devine refers to this sequence of events when discussing the benefits of the defunctioning colostomy.

I began to seek for " colostomy cases " of this kind, and there were in and about Bristol a number of patients who were living in reasonable health several years after the so-called palliative colostomy.

In 1946, recovering from a long illness, I began again looking for those for whom colostomy had been done for inoperable disease. Having secured the local doctor's permission, for a few shillings I usually found that the patients would allow me to examine them, even the rectum ! I remember particularly a builder's foreman. I found him out in the north of Scotland. He was repairing a roof. Four years before he had had a colostomy performed for an inoperable carcinoma of the rectum. He was persuaded to report at the doctor's surgery that evening. On rectal examination, four years after the colostomy, I would have said that removal was well within the bounds of possibility. (I am not thinking here of pelvic evisceration.) He himself was very fit and well. Unfortunately I did not have the right accent, and as his able Scottish surgeon had told him nothing more could be done, that was good enough for him !

Another aspect of this problem is exemplified by a case seen recently at a surgical club meeting. A friend of mine, who is a most careful and able surgeon, presented a man of 36 for whom he had carried out pelvic evisceration, avoiding a wet colostomy by diverting the urine into an ileal segment. As an example of this procedure nothing could have been better. At an appropriate moment I became inquisitive and we discussed the case in some detail. The prostate and base of the bladder were *thought* to be heavily involved—accounting for the mass and its fixity. My friend allows me freely to quote this case and herewith is the pathologist's report :—

> " Sections show an adenocarcinoma of the rectum. Between this growth and the prostate there is an acute abscess cavity, but the prostatic sheath does not appear to be invaded, nor does the bladder wall."

I have not had the privilege of working with Dr. Cuthbert Dukes, but apart from reading his many written contributions, he has given me generously of his time in discussion. I have been allowed to look into statistics which will soon be available—a monumental effort by all concerned—and a remarkable tribute both to his inspiration, and also to those who work at St. Mark's. These results show that of those who

escape the small initial mortality the five-year cure rate falls from about 50 per cent. to about 25 per cent. whenever adjacent viscera or parts of such are removed. Even the initial mortality is increased by 50 per cent. But what so interested me was the fact that in more than two-thirds of these cases there was no actual malignant invasion of the removed contiguous structures; and that is not including those cases of rectal growth where the removal of the vaginal wall is regarded as part of a routine procedure.

A discussion of this kind would be incomplete without reference to the work of Sugarbaker and Wiley. In a smaller series they found that very solid fixation showed in 40 per cent. actual malignant involvement of the contiguous structures. In the remainder they found that nearly all showed cancer cells at or about the site of contact. Even with lesser degrees of fixation tumour cells were found to have spread right through the colon wall in 87 per cent. of cases. This, in fact, they said, was true in nearly a third of the completely mobile carcinomata.

Returning to the St. Mark's experiences, it would appear that in proven malignant involvement of certain organs such as the bladder or seminal vesicles there were no five-year survivals, so perhaps little would be lost in some cases if there was a period of waiting to see what degree of resolution of inflammatory fixity was effected by a short circuit or colostomy?

Pathology of Carcinoma of the Colon

Many cases are characterised by slow growth, and it is often a long time before there are evident distant metastases. While the malignant factor may be only slowly progressive, in some cases a superimposed inflammatory factor may rapidly overtake the malignancy, and be largely, indeed almost wholly, responsible for the bulk, fixation and supposed inoperability.

It has been proved abundantly worthwhile to carry out very extensive operations to eradicate these lesions and at special hospitals and elsewhere, a "palliative" colostomy for rectal carcinoma is nowadays a rarity. However, I would like to suggest that because of this inflammatory factor we may carry our ruthlessness too far. We may be doing more than is really necessary. I am sure there are none of us who would not view with disquiet the idea of unnecessarily severe and perhaps mutilating surgery, with its inevitably increased mortality and morbidity. In such cases where nothing less than an evisceration or equally extensive ablation will be required, it may pay handsome dividends to await the effect of short circuit or colostomy. Certainly in those cases where removal is out of the question, following the relief operation there should be a periodic review, and in suitable circumstances a second look may be well worth while. For when nothing, or only a very extensive operation is possible to-day, a much easier, much safer procedure may be possible to-morrow.

The Case for Extended Resections

May we now turn to the main reason for this paper—extensive resections for carcinoma of the large bowel.

I do not propose to discuss the improved outlook which has followed the wider removal of lymphatics based on the contributions of Miles, Westhues, Gabriel, Dukes and Bussey, Gilchrist and David, and others.

I want to confine my remarks to the problem of spread by contact to adjacent structures. If there is indeed malignant invasion and not merely inflammatory fixation, there will be the added problem of a possible further spread by the lymphatic and venous drainage of the parts secondarily invaded.

Too many (in 1945 I wrote *far* too many) advanced fixed colonic growths are considered inoperable or receive only an external or internal faecal shunt. In 1950 Lahey wrote of patients who had cancer of the rectum and colon that "in the light of our wider present experiences I am very conscious of the number of patients with these lesions whom I have closed as inoperable upon whom I would now do a radical removal."

But why is it that a good proportion of patients with a palliative colostomy live so long and from what do they subsequently die? We have already considered a partial explanation of certain cases. Many, when dead, provide no evidence of distal spread, and since they have died of the effects of obstruction, haemorrhage, involvement of the urinary tract or toxic absorption, the indication is surely for bolder surgery.

At this moment I would particularly like to pay a tribute to two men whose work has always been for me a source of inspiration. Just before he died, some of us were fortunate enough to visit Newcastle where Professor Grey Turner demonstrated patients upon whom he had operated many years before. They had come from all over the kingdom and it was a unique and stimulating experience to see the results of courageous surgical attacks on cancer. He, and they, must have known that this was likely to be their last meeting in this world. To watch that rather rugged old master handle those patients with such graciousness, even tenderness, made for us one of those truly imperishable memories. He certainly lived up to the Churchillian motto of " Never flinch, Never weary, Never despair ! "

The other gentleman, whose initials are the same, is fortunately still with us—very much so ! Few could claim to have instilled more zest and given greater encouragement to young surgeons than Sir Gordon Gordon-Taylor.

With advances in anaesthesia, with better control of infection and progress in the surgery of replacement ; with the biochemist unravelling one problem after another—with all these changes, more and more may be done without killing the patient, though not necessarily for his good.

Let no one belittle the value of technical excellence but it is possible to become infatuated with technique. The preserved life must be worth living.

But though it may be a responsibility to urge such an operation we should surely think twice before advising against a procedure which may result in some further years of good and useful life.

Nevertheless the decision must surely demand most careful and critical consideration. It may seem an elementary thing to say that it is proper always to consider what would happen if *no* surgery was done, though from time to time we may see a sufferer who might receive benefit from tractotomy, even leucotomy. It may be that patient, kindly and sympathetic care is all that is indicated. It may be best if surgery is restricted to a simple procedure, designed to relieve some unpleasant symptom. With distant metastases already evident, a larger operation may rightly be undertaken, and though still regarded as a palliative it may turn out better than expected. There is no need to emphasise to you the inestimable value of ridding our patient of a foul, ulcerating and bleeding growth, whatever other burdens he may have to bear. Finally, a wide resection aimed at a cure may be our goal. It is to the latter group we turn, though it is with some diffidence that I take up your time in discussing some of these cases, for we have never tried to conceal from ourselves the fact that more and more extensive surgery is not the answer to the control of cancer. Nor for that matter are improved methods of radiotherapy, chemotherapy or hormone therapy, invaluable as they are. It may well be that well before A.D. 2005 we shall have discovered those factors, " unproven and unknown " which we feel must exist—factors which either govern the life and growth of the potentially malignant cell, or at any rate forbid its lethal activity.

Unhappily, cancer of the colon can be a very silent enemy. In spite of all our efforts to teach the earlier features, from time to time the late case still turns up and presents the sort of challenge depicted in the following cases. I shall describe a selection of such patients in some detail and then make some general remarks regarding this kind of surgery. Wishing to bolster my contention that this work is worthwhile, I shall speak chiefly of earlier efforts. In those years these extensive operations were not frequently carried out, and there was a time when we were a little proud of our prowess !

Above all I wanted to encourage those who spend time in this field of work, to stimulate others to undertake it, and to convince the sceptics that it is worth the labour involved.

EXAMPLES OF EXTENDED RESECTIONS

1934—Mr. Dukes—aged 62

Twenty-two years ago operation was declined for a large fixed mass in the right abdomen. Unorthodox treatments in London occupied another

year, by which time he was a wreck of a man with a vast lump, readily visible. Still gambling on a possible absence of liver involvement we spent some days in preparation and then divided the ileum and joined it to the transverse colon. Two weeks later an afternoon was spent doing a right hemicolectomy, removing a large segment of the anterior abdominal wall and the iliopsoas. (Both shown to be involved.) Fortunately the ureter could be dissected away and the kidney spared. The iliac vessels were ultimately freed from the mass. In the end *malignant* glands had to be cleared with difficulty from the junction of the right colic artery and superior mesenteric trunk.

He needed some patient aftercare and the stimulating effect of whole fresh blood, but he recovered, and to-day—21 years after—he is fit and well. He cycles all over the countryside, and celebrates his 84th birthday in a few weeks' time.

1941—Dr. Hesketh Biggs

Ten years later we had to deal with an almost exactly similar problem. The patient was a doctor who had been practising in Italy, until he was thrown out by the Mussolini régime.

I came across him in a country cottage hospital where he was acting as locum tenens for a doctor who had not had a holiday for many a long year. Although the growth was very fixed and had broken through the abdominal wall, nothing would persuade him to give up his job, but two months later we were allowed to operate. I can well remember spending the whole of a Sunday evening removing most of the contents of the right half of his abdomen ! His recovery was rapid and uneventful, and within a fortnight he was convalescing in our country cottage, and a week later he drove himself away in his car together with all his worldly possessions ! He used to come and see me whenever his affairs brought him to the West of England. Not long ago I was operating in a Devon cottage hospital, when I was told there was a friend of mine who would like to see me. This was the old doctor, now seriously ill with cardiovascular disease, but with no evidence of any recurrence of his carcinoma. (October 1955—he is still alive and well.)

1934—Mrs. Percival—aged 52

In this case stomach, colon, and ureter involvement necessitated partial gastrectomy, transverse colectomy, with removal of spleen and left kidney. I left her with a colostomy which I failed to close completely and there was a minute opening, which, just occasionally, discharged wind with a high-pitched whistle ! This amused her so much that she refused to part with it. After seven years I lost sight of her. She had come from London for her operation and subsequent reviews meant a very long journey.

1937—Mr. Rossiter—aged 64

Much the same operation was carried out. His recovery was nearly prevented by a post-operative obstruction of the small intestine by a band.

Fortunately I made myself reopen his abdomen in time (sometimes a difficult thing to do). Nearly *four years of good life* ended with obstructive jaundice, due, I am sure, to liver metastases.

1937—Mr. Pelley—aged 63

Twenty-one years ago I spent nearly three hours before I could *fully mobilise* a large fixed carcinoma of the transverse colon.

Very gradually the main superior mesenteric artery was cleared and there was just room to tie by silk ligature the origin of the middle colic trunk.

I started, and continued without any certainty of being able to finish, but he survived and continued to be a very valuable member of the community, a great sportsman, playing county tennis since his operation.

He was then quite fat, as well as muscular, and I felt bound to leave him with a colostomy, which was subsequently closed. He is still well after 18 years.

Incidentally, my colleague, Mr. Angell James, had previously removed a carcinoma of the larynx.

Mr. Watts—aged 36

I feel compelled to remark on the recent appendicectomy scar. Not many years ago a young man, admitted under my care, suffered the loss of his appendix through a neat and small incision. Having preached about this particular disaster for so many years, and having urged my students to read Devine's book in which this and many other important points about colonic surgery are so well portrayed and emphasised, you will understand my dismay when I saw this man some three months later and the true nature of his complaint was appreciated. Exploration revealed a very fixed lesion in the lower left colon. He was fat and powerful and for once the anaesthetist was in trouble. It was hoped that local fixation might diminish following right transverse colostomy for three months. However, not surprisingly, the man lost his faith in us and came to London. In Mr. Naunton Morgan's absence, Mr. Golligher made a gallant attempt. Some of the contact fixation was by then freed but it was necessary to sacrifice the iliac vessels. Death occurred, rather unexpectedly, just as the operation was completed.

The " appendiceal " type of carcinoma of the colon is by no means a curiosity. Too many similar instances still occur. Nowadays we would not think too seriously about sacrificing a main vessel, and replacing it if necessary in order to effect a wider excision of a malignant growth.

1938—Mrs. Santall—aged 37

A tendency to constipation was first noticed three years before we saw her, and six months later rectal bleeding had first occurred. Her doctor thought all was probably due to internal piles, and after continued bleeding arranged to inject them. However, piles could not be found

and she was put on a diet for " colitis." The bowels were kept fairly normal with liquid paraffin but bleeding continued, and the *patient* felt that there was something wrong, and demanded a further opinion.

The colon was X-rayed after barium enema and the report stated that colitis was present. However, as this did not seem wholly satisfactory, sigmoidoscopy was performed. The lower colon was normal—no evidence of colitis, but blood was seen coming down from above. Colostomy was performed, and later with much difficulty an advanced growth was removed and end-to-end anastamosis done. The uterus and part of the bladder had to be removed, the left ureter reimplanted. A section of small bowel had to be sacrificed. Still well in 1944, I lost sight of her and cannot trace her now.

1942—Mrs. Chapman—aged 53

When I first saw her in 1942 there was a history of two months' awareness of an increasing swelling in the right upper abdomen. There was lassitude, loss of weight and vigour. There were no bowel features until a large haemorrhage per anum, which bleeding led her to seek advice. On examination—there was a huge mass visible in the right upper abdomen.

9th November 1942. At operation the visible tumour proved to be the right lobe of the liver largely replaced by a mass of growth involving the gall bladder. The posterior part of the right lobe, and the left liver, was soft and pliable and free from palpable visible metastases.

The primary growth was in the colon just above the pelvic floor, and though quite small, there were many hard glands in the mesentery. The right hepatic artery (very large), the cystic and right hepatic ducts, were all ligated and divided, and the right lobe of the liver with the gall bladder was removed with the diathermy knife. Having previously " mattressed " the normal liver proximal to the line of excision there was but little bleeding, though all the right lobe was removed.

21st November 1942. At a second operation the growth was excised with end-to-end anastomosis flush with the pelvic floor. Many invaded glands were carefully removed *en bloc* with the growth and its mesentery. Her recovery was uneventful, with no infection in spite of some inevitable contamination.

Four full, good years passed, and then her health began to fail. She died without pain with what I am sure was further growth in the left lobe of the liver. We must be slow to claim very much from our surgical feats where liver metastases are concerned. There are so many examples of several years of full health in the presence of such metastases. I will quote from Mr. Aylett's book—" There is no evidence, however, that such a procedure alters the course of the disease. When one deposit is palpable in the liver, the presence of other innumerable, if microscopic, foci of cancer is almost certain."

1942—Mr. Green—aged 64

He was first seen when admitted in March 1942 with complete, superimposed on chronic, large bowel obstruction. There was gross distension. Vomiting was frequent and the pulse poor and rapid. There was no result from enemata. There was a previous history of mild colics and distensions for a year.

5th March 1942. A transverse colostomy was performed with a long spur. There was a large fixed mass which seemed to fill the left upper abdominal quadrant. Following recovery, bowel lavage was continued until the distal defunctioned bowel was considered clean.

8th April 1942. A very full and free exposure allowed mobilisation and excision of the growth with end-to-end anastomosis. The growth had crossed from left transverse colon to invade by contact the descending colon. Fixed to anterior abdominal wall, it had also invaded the psoas and ureter, causing hydronephrosis and necessitating nephro-ureterectomy and excision of the psoas. Convalescence was smooth and uneventful. No transfusions were necessary and the patient was sent home in three weeks. On 4th September the colostomy was closed, but on 13th September there was a sudden onset of acute, colicy pains followed by vomiting and rapid deterioration.

14th September 1942. A lower abdominal incision revealed a *single band* deep in the pelvis with a snared loop of small bowel. Recovery was uneventful and he is still fit and well nearly 13 years later.

1943—Mrs. Rees—aged 59

Her operation involved a subtotal gastrectomy with colectomy plus two segments of small intestine, all of which were shown to be actually invaded with growth. The transverse colon was obstructed and the right colon loaded with solid faeces.

By mobilising the splenic flexure I was able to make a safe immediate anastamosis (ileum to descending colon) with empty bowel, and so avoid exteriorisation and colostomy.

More than three years later she died, and I have not been able to find out the cause of death, but the tablet erected to her memory reads, " Passed *peacefully* away in her sixty-second year."

1951—Mrs. Rogers—aged 80

The growth was in the transverse colon and admittance was because of subacute obstruction. The whole of the proximal colon was greatly distended with faeces, but by resecting the faeces-laden bowel together with the growth and mobilising the splenic flexure it was quite simple to do an end-to-end anastamosis with the distal ileum and the descending colon. She was home in three weeks and a year later she was a stone heavier and in fine fettle.

I feel sure that in certain cases with completely favourable circumstances it is reasonable to execute this procedure and so avoid a staged attack

with all its drain on an elderly patient's morale and, possibly—financial resources.

1945—Mrs. Sandford—aged 69

In her case resection, 10 years ago, necessitated the removal in one mass of most of the stomach, all the transverse colon, gastro-colic omentum and great omentum, and two segments of the small intestine. She is well —10 years later, though a sufferer from mild Parkinson's disease.

Incidentally I forgot to remove her gall bladder, and two years ago I saw her with what was supposed to be a recurrence. The removal of the gall bladder and drainage of an associated abscess was well tolerated, and when I spoke to her the other day she was just off to the pictures!

1953—Mrs. Leir—aged 92 years

I saw this old lady in 1953—There was evident chronic obstruction and a very large fixed mass in the right lower abdomen. Her general condition was good but mentally she was deteriorating. She was comfortably off, and well cared for. All the same I think I should have done the minimum which would have freed her of symptoms. Instead I was guilty of making an exploit of it. I jumped at the opportunity to show off my surgical skill to a doctor I wished to impress. I was able to remove the whole mass—colon, iliacus, two loops of ileum associated with one of which was a spontaneous internal fistula. End-to-end anastomosis of ileum to transverse colon was followed by a rapid, uneventful recovery and a return home in a fortnight. Less than a year later she died.

The same criticism might be levelled at the next operation which was carried out during the visit of one of our surgical clubs.

1953—Mrs. Harris—aged 82

To effect the mobilisation and removal of a carcinoma of the ascending colon and hepatic flexure, it was necessary to begin by taking off a large slice from the right lobe of the liver. Much patient dissection was necessary to free the inferior vena cava but the upper ureter and kidney had to be sacrificed. A group of glands at the origin of the right colic artery meant more patient dissection. In the end the second and third parts of the duodenum had to be denuded of peritoneal and muscular coats to free the mass. Although only the intact mucosa remained of a considerable section of the duodenum, no harm resulted. The ileum was joined end to end with the transverse colon. She was very well the next day and was soon up and out of hospital. She reported at the Out-Patient Department on several occasions and seemed very well, but within a year she was failing again and soon died.

A simple ileo-transverse colostomy would have probably served her just as well as the larger operation.

A few months after this, again during a surgical club visitation, almost an exactly similar case was dealt with in a like fashion with success until the present time.

The Colloid or Mucoid Carcinoma of the Colon

To quote from Willis, " There is probably no glandular tissue, endocrine or exocrine, the secretion of which is not produced in some of its innocent or malignant tumours." The most familar instance of an exocrine secretion in tumours is the mucus produced so plentifully in the so-called " colloid " or mucoid adenocarcinomas. Abundant mucus is discharged extra-cellularly, and sometimes very large swellings result. With carcinomas of the large bowel a degree of this peculiar condition is common enough. Reported series show this condition in some 20 per cent. of right-sided growths, 10 per cent. in the transverse colon, but less than 5 per cent. in sigmoid tumours. The massive examples are quite rare. Varying accounts are given about their prognosis, but local invasion and distant metastases are seen as in other types of colonic growths.

I would like to report two cases of truly massive colloid carcinoma of the pelvic colon. The first, a woman of 51, presented herself on account of some lower abdominal discomfort and her own discovery of a very large swelling. This swelling, having filled the pelvis was reaching well into the abdomen. There were negligible symptoms and a gynaecological condition seemed the reasonable diagnosis. The barium enema indicated no large bowel involvement, and certainly no evidence of obstruction— " the tumour must be *extra*-colonic." My registrar, Mr. Michael Wilson, was not so sure, and he quietly prepared her as for a possible colonic excision.

On exploration three years ago the descending colon was found to disappear into the mass which was fixed to the abdominal wall and the bladder, portions of which were excised in order to mobilise the tumour. I fully expected trouble with the left iliac vessels and ureter, but although adjacent they were not involved. Lifting the mass out of the pelvis a few inches of normal pelvic colon were found cockled up and compressed on the pelvic floor. No wonder the sigmoidoscope would not readily pass. It was easy enough to make an end-to-end anastamosis and recovery was uneventful. There were no evident metastases and she is still well. There was a rather ragged canal through the mass—representing the bowel lumen.

Soon afterwards a replica of this tumour was seen, this time in a man. He was presented at an important examination. Many and widely differing diagnoses were made, both by candidates and examiners—but all, I think, wide of the mark. Later on I was privileged to see the operation and as soon as the abdomen was open I was certain of the diagnosis—another adherent, massive colloid growth of the left colon. Mr. George Qvist had a large operation on his hands and a subsequent colostomy was necessary before the patient's eventual recovery.

General Remarks on Operative Procedure

These operations can call for all the technical skill, courage and even

physical endurance which we can muster. This is not the place for too narrow a specialist.

Preparation follows the usual lines, but it is possible to be too zealous about this. To overlook severe renal insufficiency in the apparently healthy is not an uncommon cause for unexpected failure, and nothing in the way of after-care will compensate for this particular error. Patients may be elderly or tired with prolonged overwork. A few days rest in bed will often work wonders. Of course everything must be done to bolster up waning powers of healing but nothing is going to be more important than the maintenance of morale. Even with sound technique there must be unremitting after-care, preferably carried out by the surgeon himself. I like to feel that, better than anyone else, I can spot the little thing that may be going wrong and promptly set about putting it right. I must note the flagging spirit and revive it—with potassium if necessary, but only too often it is encouragement that is required. No one can do that sort of thing as well as the surgeon himself. In a certain sense you have to " carry " these patients through their ordeal.

Good exposure is all important in any form of surgery, and certainly in this sort of work nothing must be spared towards that end. The incision must be generous—even extravagant. With an inadequate exposure it is so easy to say that nothing can be done. To attempt mobilisation without it is simply asking for trouble and making difficulties and dangers which never occur when you can really see exactly what you are doing.

Even with the improved bowel preparation and present-day control of infection there should be just as much care in the avoidance of soiling and contamination, particularly of retroperitoneal spaces and the abdominal wound. Such care implies perfect exposure to allow good protection by towelling.

There is every need for patient and quiet perseverance. There can be no hurry or dash. Gentleness is as important as determination. In this connection, I think of many men and particularly of Waltman Waters. Another who taught me so much of the value of gentleness was Peter McEvedy, an honoured name in British surgery. One has often carefully to pick one's way from one point to another, doing a little here and then a little there. When an attempt at a wide resection is possible, it may well be that we shall be embarking on a very long operation. This kind of case must not be just another on the " operating list " : it *is* the list itself. As the operation proceeds I try to maintain most meticulous haemostasis. Surely an ounce of blood retained in the circulation is worth any three put in later. Since the operation cannot be planned, I have found it helpful when in difficulties deliberately to pause for a while. A little quiet thought in the middle of the procedure may prevent an unwise step. How often, after a large operation, we look back and wish we had done something rather differently or not at all.

Unsuccessful Attempts

An unfortunate man was found to be suffering from an extensive *local recurrence* of a growth in the descending colon. The initial attempt at excision was unfortunately inadequate and by the time I saw him, not only had he again developed chronic obstruction, but a vast lump was fixed to the anterior and posterior abdominal walls and the wing of the ileum was extensively involved, as shown by X-rays. He was only 52 and in good general condition.

I suspect I was wrong to think of anything other than a short-circuit and in the end that was all that could be done—or rather two short circuits, which gave him relief from obstruction until he died some months later. The growth had passed beneath the aorta and a very large area of the posterior abdominal wall was infiltrated.

On another occasion some years ago the pelvic floor was grossly involved and I made a similar error in supposing I could accomplish what for me was impossible, but I suppose that a mistake of this sort is well nigh inevitable from time to time.

Only twelve months ago I was about to abandon another of these resections because the superior mesenteric artery seemed inextricably involved. A graft or orlon replacement would have simplified matters but although both this artery and vein have been replaced with technical success, as far as I know no patient has survived for one reason or another. This particular problem was made much more difficult because of a recent attack of acute pancreatitis. There was extensive fat necrosis and the pancreas firmly adherent to the colonic growth. My colleague Gordon Paul came into the theatre and encouraged me to go on, and presently a naked main vessel was freed up to the aorta and by means of a partial removal of the pancreas, parts of the colon and the small intestine, the malignant mass was excised. Convalescence was uneventful, and she is still well.

Failures

I cannot remember anyone dying soon after one of these operations, but there were two old patients who never really made a recovery and gradually succumbed—none the better for surgery—probably suffering all the more because of it.

In early days a life was lost because, after a good week following a procedure involving removal of the rectum, uterus and small intestine, I failed to recognise and promptly re-operated for simple mechanical obstruction due to a band. As I have written before, lives still are lost from want of courage to admit that something is amiss following our operation. The improvement which follows gastric suction and intravenous therapy instead of being the signal for resolute re-intervention seems too often to initiate a state of uneasy security, while the patient continues to die.

One further error I would warn against. Never be persuaded to carry out a major operative procedure if the patient has already senile or other mental degeneration. Only two years ago a surgical colleague over-persuaded me to do this, and I suppose as Newman put it—" Pride ruled my will." The man did indeed recover from an extensive operation, only further to deteriorate mentally so that very soon, even his devoted wife no longer wished him to live.

Criticism

And now for the critics—those who say that this is effort all in the wrong direction. Much criticism rests on the time, labour and bed occupancy involved when there is so much routine work waiting to be done. It is argued that at best the results are meagre and that since a proportion of these patients are old we are but adding to what has become a national problem—the housing and care of the elderly and infirm.

Yet many of these older folk still love their life. (" No one loves life like an old man "—Sophocles). Many of them can still make their special contribution to the little circle in which they live.

For the time being, surgeons must grapple—albeit crudely—with the problem of malignancy as they find it. Apart from useful contributions in the fields of prophylaxis and diagnosis we must still busy ourselves with curative and palliative surgery. And I would concede to the sceptic that if indeed a cure seems to be effected the surgeon will have been assisted by those defence mechanisms of whose existence we feel as certain as about which we are woefully ignorant. It may be that all through the years of so-called cure there are minute dormant metastases which will one day develop. We must concede all this and yet carry on. The dormant metastases may remain so indefinitely.

The successes we have had have been largely the result of adhering to principles taught by many old chiefs and colleagues. No innovation, however helpful, however important, has done away with the need for perfect exposure and gentleness ; the prevention of bleeding and contamination, and the avoidance of all kinds of tension at suture lines. There is much to be said for obeying these simple rules and less reliance on excessive retraction, pulling, blood replacement, antibiotics and the like.

It has rightly been said and recently emphasised by Simmonds that this kind of operation must never sink to the level of a mere surgical exploit.

Two thousand years ago the Roman poet and jester wrote—" It matters not how long you live, but how well." It was our own Professor Stammers in 1949 who said, " In living it is quality and not quantity that matters."

Though breaking them occasionally, we have tried to " obey the rules." The records given would suggest that these men and women have found their extra years worth while.

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GRANT OF FELLOWSHIP DIPLOMAS

AT THE RECENT Final Examination for the Fellowship 3 candidates out of 11 were successful in Ophthalmology, 4 candidates out of 19 in Oto-laryngology, and 89 out of 291 in General Surgery.

At the meeting of the Council on 8th December 1955, Diplomas of Fellowship were granted to the following:

HENSON, Philip (*St. Bartholomew's*)
WRIGHT, Henry Beric (*University College*)
KELLOCK, William de Montmorency (*The London*)
LEVY, Laurence Fraser (*University College*)
MILLS, Ronald Hubert Bonfield (*University College*)
PHILIP, Philip Paton (*St. Bartholomew's*)
DAVIS, Royston Reed (*Westminster*)
PRYER, Richard Rhodes Lorimer (*The London*)
COWAN, Desmond John (*Middlesex*)
ASHTON, Frank (*Birmingham*)
STERN, Werner (*University College*)
†HARRISON, Donald Frederick Norris (*Guy's*)
LYTTON, Bernard (*The London*)
HOBBS, John James Barclay (*St. Bartholomew's*)
WARD, Michael Phelps (*The London*)
SMITH, Bertram Owen (*Westminster*)
WAKELEY, John Cecil Nicholson (*King's College*)
WHEATLEY, Austin Edward (*King's College*)
SWEETNAM, David Rodney (*Middlesex*)
WILLIAMS, John Alexander (*Birmingham*)
SELIGMAN, Stanley Albert (*University College*)
BRADBEER, John Wyatt (*Guy's*)
ROBERTS, John Gunn (*Glasgow*)
TANNE, David (*Witwatersrand*)
WATT, James (*Durham*)
MODLIN, Montague (*Cape Town*)
CHANDRA, Shakuntala Prem (*Punjab*)
CASHMAN, Bernard (*University College*)
PRICE, Evan Reginald (*Cardiff*)
KOTZÉ, Johannes Christiaan (*Witwatersrand*)