An Address

ON SOME ABDOMINAL TUMOURS SIMULATING MALIGNANT DISEASE, AND THEIR TREATMENT.

DELIVERED BEFORE THE TORQUAY MEDICAL SOCIETY.

By A. W. MAYO ROBSON, D.Sc., F.R.C.S.

MR. PRESIDENT,—In response to your kind invitation, I thought it might prove of interest if I gave you a record of my personal experience in a class of cases which are far from being uncommon, and which furnish some of the most puzzling problems with which the profession has to deal.

The cases to which I refer yield some of the most satisfactory, though at times unexpected, results, for many of the patients have had a grave, perhaps a hopeless, prognosis pronounced, and yet as the result of treatment some of them may be restored to perfect health.

Unfortunately, a single case of this kind may be the making of a fortune to the charlatan or the faith healer, or may serve to establish the reputation of a patent remedy; moreover, the unscientific and too sanguine administrator of reputed remedies, such as the various thyroid preparations and other so-called cures for cancer, is at times apt to forget that "one swallow does not make a summer," and if he happens to administer his medicine or injections in a case of this kind he forgets that "*post hoc*" is not necessarily "*propter hoc*" when he hastens to announce the fact that he has discovered a cure for cancer, though his vaunted remedy may fail to influence his next 99 cases.

From a very considerable experience of abdominal tumours that have simulated malignant growths, but which arguing from the sequel of events and the ultimate complete recovery of the patient must probably have been inflammatory, I can only conclude that such tumours are much more common than is generally supposed, and I feel, therefore, that in giving an opinion on an abdominal tumour having the appearance and feel of cancer and even having the clinical signs and symptoms, a guarded prognosis should be more frequently given; knowing well that if a hopeless prognosis is hastily pronounced, the patient and his friends will not be content to sit down and await events, but will almost inevitably drift into the hands of some cancer-curer or faith healer, who may occasionally score a point against a qualified physician or surgeon, who in his desire to be honest has been unwise in too hastily giving a gloomy prognosis.

Such tumours occur in every region of the body; for instance, I have seen mistakes made by careful observers between inflammatory swellings and malignant growths in the neck, in the breast, in the thorax and in the limbs, yet they are much more common in the abdomen than elsewhere. To-day I propose to mention only abdominal cases and to relate the salient points without entering fully into the detailed history of the cases, many of which are full of interest, but would occupy too much time to relate *in extenso*.

Attention has recently been drawn by several writers to the simulation of malignant disease by chronic inflammatory affections of the sigmoid flexure, but the same conditions may occur in any part of the large intestine, caecum, colon, sigmoid and rectum, leading more frequently to errors in diagnosis and prognosis than to mistakes in treatment.

No less than five times in the last twelve years I have had patients sent to me suffering from supposed cancer of the rectum or sigmoid flexure with obstructive symptoms necessitating a colotomy, in whom, after periods varying from one to three years, I have been called on to close the artificial anus because of the complete disappearance of the supposed growth. All of these were striking cases, but I will only briefly mention two:

One, a gentleman of just over 50, complained of increasing constipation with the occasional passage of blood by the rectum, and on examination not only could an ulcerated stricture be felt "*per rectum*," commencing at a point as high as the finger could reach, but a mass could be felt in the sigmoid region. His general health had failed; he had lost flesh, and he looked cachectic. No doubt entered my mind or

the minds of other medical men who saw him, as to the disease being cancer, and a colotomy was advised and performed. When the abdomen was opened I felt the mass nodular, hard, and fixed; the pelvic glands were enlarged, and there was a little ascites, so that excision was out of the question. Much to my astonishment, the tumour diminished gradually and his health began to improve, and—to cut a long story short—he was quite well within a year, though I did not close the artificial anus until two years had elapsed. That is three or four years ago, and I hear the patient is still in good health.

In another case, in an elderly clergyman, a similar course of the disease led to a corresponding treatment, but the smoothness of the stricture in his case led me to say that I hoped it might prove to be simple and disappear after the bowel had been rested, though in my own mind I feared the chances were much against it. In two years he returned to see me, looking the picture of health, and I examined the rectum and sigmoid with the electric sigmoidoscope, and found it perfectly healthy, with the bowel lumen normal. The artificial anus was therefore closed, and he is now in good health.

Bearing in mind these and other cases in which I had seen resolution to occur in an inflammatory tumour of the colon, I put my experience to the test in the case of a retired military officer, about 55 years of age, who developed a tumour in the ascending colon in the course of a three months' illness, attended with abdominal pain and increasing difficulty in getting the bowels moved. When I saw him with his medical adviser he looked very ill, had lost flesh considerably, and complained of pain in the caecal region, which was associated with visible peristalsis. The tumour was somewhat diffuse and tender to pressure, but I could feel no nodules and no enlargement of glands, nor was there any sign of ascites. Moreover, my medical colleague told me that the patient had in a former illness suffered from a similar swelling on the left of the abdomen which was diagnosed as cancer, but operation was declined, and after a long and tedious illness he recovered. As removal was clearly impossible and complete obstruction was absent, we decided to wait, to give him belladonna and nux vomica, to apply antiphlogistine continuously, and to keep the bowels open by enemata. I did not see him again, but had a report six months later to say that he had recovered completely.

In August of 1906 I saw a remarkable case with a medical friend in Lincoln—an aged gentleman very seriously ill with symptoms of intestinal obstruction associated with the presence of a nodular, hard tumour opposite the umbilicus which we all thought malignant, both from the progressive character of the tumour and the great deterioration of health and loss of flesh. On opening the abdomen some ascites was found associated with a large nodular swelling involving the transverse colon, the omentum, and some coils of the small intestines, though the obstruction was manifestly in the colon; removal was impossible and a short-circuiting operation was performed, with the result that rapid recovery ensued, the tumour gradually disappeared, and a year later I was informed that the patient was in excellent health.

About twelve years ago I operated on a similar case in a patient over 70 years of age, but in this case the tumour was in the ascending colon and the obstruction was acute; a short-circuiting operation was performed by connecting the ileum to the sigmoid flexure, with the result that three years later I had a report to say the patient was still in good health.

A case perhaps even more remarkable came under my care about two years ago in a middle-aged lady, suffering from chronic intestinal obstruction with visible intestinal peristalsis following on an illness of many weeks' duration. On opening the abdomen a large tumour was found embracing the splenic flexure of the colon and involving a loop of small intestine, both of which were strictured. As the omentum was adherent and the tumour was nodular and hard, no doubt entered our minds as to the case being malignant, and as its removal was quite impracticable, a double short-circuiting was done, colon to colon and small intestine to small intestine. All who saw the case agreed in giving the patient not more than three months to live, yet she recovered without any complications, got quite well, and a year later was in good health.

What was the pathology of these cases? Probably in all of them a chronic infiltrating colitis, possibly associated with pouches lodging faecal matter, or may be simply due to infection spreading through the intestinal walls.

Two forms are commonly described, chronic adhesive colitis, in which the onset is usually acute, and chronic infiltrating colitis or proctitis, in which the onset is insidious and the progress slow; both are associated with increasing difficulties in getting the bowels moved and with great deterioration of health and loss of flesh.

The fact that cancer is often complicated with inflam-

mation makes a positive diagnosis extremely difficult and at times impossible, but fortunately the treatment of securing physiological rest by operation is curative if the disease fortunately turns out to be a primary inflammation and not secondary to growth.

Other diseases of the intestine simulating cancer may demand surgical treatment.

I operated on a middle-aged military officer last year, who was sent to me by the late Sir William Broadbent with a tumour of the caecum. The symptoms pointed to inflammation supervening on cancer, and an exploratory operation was advised. A hard mass was found, consisting of a tumour of the caecum with the omentum adherent over it, and as it appeared to be removable I thought it best to excise it, which I did widely, believing it to be cancer. The patient recovered, returned home within the month, and is in excellent health now. The disease proved to be a pouched caecum, all the pouches containing hard faecal concretions, one having perforated, and the inflammatory process having been limited by adhesions of the omentum.

Chronic tuberculous disease of the caecum may closely simulate cancer, and in the Clinical Society's *Transactions* for 1902 may be found a paper of mine reporting a series of cases, some of which I excised, and even after removal it was only on microscopic investigation that the true nature of some of the tumours could be discovered.

In two cases I have found chronic tuberculous tumours of the small intestine forming suspicious tumours; in one I excised 1½ ft. of the ileum in a patient of 51, and in the other I short-circuited the obstruction, recovery and restoration to health resulting in both cases.

Although in this condition a diagnosis is usually possible from the tuberculous history and the length of time the disease has continued, in some cases a correct diagnosis is not easy until after removal and examination of the tumour. The age of the patient is not always a guide, as some of my tuberculous cases have been over 50, and, on the other hand, I have removed a cancer of the colon in a girl of 14.

The following was a very unusual form of tumour simulating malignancy:

Early in 1907 I had a knotty question to decide in a patient who had bowel symptoms associated with disease of the uterine appendages, the left of which was adherent to the lower part of the sigmoid flexure. After removal of the diseased appendage and separation of adhesions we felt a marked thickening of the wall of the large bowel, where the tube had been attached, and, thinking it only inflammatory, we decided not to remove it, hoping it would subside. A few weeks later, as the obstructive symptoms were increasing, an examination was made with the sigmoidoscope, when at 20 cm. from the anus, at a point corresponding with the once adherent appendage, the lumen of the bowel was found to have seriously narrowed. On opening the abdomen the tumour forming the stricture was readily found, and colectomy was performed, the patient recovering. A microscopic examination showed the tumour to be an infiltration of the wall of the sigmoid flexure by the ciliated epithelium of the Fallopian tube, the small cysts in the colon resulting in the formation of a tumour leading to stricture.

It would scarcely be thought possible that a stone in the left ureter might give rise to a suspicion of cancer of the splenic flexure of the colon, yet an attack of intestinal obstruction in a gentleman of 73, with a tumour below the left costal margin and no urinary symptoms, led to such a suspicion. Fortunately, the relief of the obstruction and the subsequent development of a hydronephrosis made the diagnosis clear, and when I removed the stone from the ureter the colon was felt to be free of tumour, and, as the patient is now quite well, our former suspicion was evidently incorrect.

To pass to other organs: Early in my career I saw a patient reduced to the last extremity of weakness owing to a gradually increasing difficulty in taking food and an inability to swallow; moreover, persistent attempts to pass bougies failed. There were all the symptoms of cancer of the oesophagus without any evidence of oesophageal pouch or cicatricial stenosis of the canal. A gastrostomy was performed, and a time limit given to the relief likely to be obtained; yet I saw that patient six or seven years later still occasionally resorting to feeding through his gastrostomy opening.

A similar experience has occurred to me on two other occasions, and the question still remains, What was the cause of the obstruction? Clearly not cancer, though all the symptoms pointed to it.

My largest experience of doubtful tumours diagnosed as, or suspected to be, malignant, when the subsequent

course of events has proved the disease to have been simple, has been in the stomach.

In one of my early cases, before I recognized the importance of the facts I am now bringing forward, I received a sharp lesson. I explored the abdomen of an aged man with typical symptoms of cancer of the stomach and with a tumour easily felt below the left costal margin. Finding the cardiac end of the stomach involved quite up to the oesophagus, removal was clearly impracticable, and as the pylorus was free I closed the abdomen and gave a hopeless prognosis. Much to my astonishment he came to see me a year later a well man. The disease had evidently been inflammation around an ulcer, and the care in diet and rest necessitated by operation had started a process of cure.

I have operated on quite a number of cases in which, after a long history of stomach symptoms, a tumour had developed which, on external examination, presented every appearance and the feel of cancer, and which, even when the abdomen was opened, gave the same impressions, except that the enlarged glands were discrete and there were usually adhesions which precluded any attempt at removal. The following examples serve to illustrate what I mean, and to show that in some of these cases, where merely temporary relief only was anticipated, complete and permanent cure resulted from the operation.

A professional man, aged 31 years, had had dyspepsia for seventeen years, more severe during the preceding twenty months. Sixteen months previous to my seeing him, sickness began and from the outset large quantities were vomited but never contained blood. In December, 1897, the stomach reached to the pubes and visible peristalsis was present. Relief followed dieting and lavage until March, 1898, since which time the pain had been almost constant. The pain was not materially worse after food or relieved by vomiting. A loss of weight occurred from 10 st. to 6 st. 6½ lb. There was great feebleness. Gastro-enterostomy was performed on May 6th, 1898. A large irregular tumour was found at the pylorus and along the lesser curvature with extensive adhesions, but the glands, though large, were discrete. A good recovery was followed by relief of all the symptoms. When the patient left the home on June 7th his weight was 8 st.; on August 17th, 1898, it was 9 st. 3 lb. The following is an extract from a letter received from the patient dated February 12th, 1900: "My health continues perfect. I have not lost a day's work through illness since I recovered." He was in good health in 1906.

A man, aged 45 years, gave a history of pain for two years about an hour after food, with great loss of flesh. For nine months he had vomited every day or every second day a large quantity of yeasty material, but no blood, though he was very anaemic. There were well-marked signs of dilatation of the stomach, with tenderness over the pylorus and the presence of a tumour. Posterior gastro-enterostomy was performed on June 12th, 1900. On opening the abdomen the pylorus was found to be much thickened and adherent, forming a hard nodular tumour having the appearance and feel of cancer. Through the centre of the mass a No. 10 catheter only could be passed over a roughened ulcerated surface. An uninterrupted recovery followed. Food was begun the second day and solids could be taken in the second week without pain. He rapidly gained flesh and strength and was well some years later.

A man, aged 48 years, was supposed to be suffering from cancer too advanced for treatment, the patient being extremely feeble and having lost from 2 to 3 stones in weight in six months. The presence of a tumour in the pyloric region with well-marked dilatation of the stomach and profuse coffee-ground vomiting rendered the diagnosis extremely probable, though the history of pain from one and a half to two hours after food for three years with other symptoms of pyloric ulcer led me to hope that the disease might be simple. Operation was performed on May 30th, 1902. An extensive tumour at the pylorus associated with stenosis, dilatation of the stomach, perigastritis and adhesions, together with numerous discrete, though much enlarged glands, led me to perform gastro-enterostomy. The patient rapidly put on weight, gained strength, and lost all his distressing symptoms. When he returned to report himself in three months he was robust and well, and no trace could be found of the tumour or of the dilatation of the stomach. He is to-day in perfect health.

Did time permit, I could relate a very large number of cases in which gastric tumours, apparently malignant, have disappeared after gastro-enterostomy.

These cases teach the important lesson that one ought not hastily to give a hopeless prognosis after gastro-enterostomy for tumour, for when there is any doubt whatever about the malignancy or otherwise of the growth, it is well to give the patient the benefit that is derived from the hope of cure. Another lesson to be learnt is that an exploratory operation is worth performing in nearly all cases of tumour of the stomach, for even

if the growth cannot be removed, the rest engendered by a gastro-enterostomy will almost certainly give relief, and in some, thought at first to be malignant, a cure may follow.

In two doubtful cases of this kind, where the absence of adhesions rendered it practicable, I have been able to prove the nature of these cases by excising the pylorus when dissection and microscopic examination have shown the presence of chronic ulcer with inflammatory hyperplasia, this affording a sufficient explanation of some of the cases that recovered after securing physiological rest without excision.

Duodenal ulcer, either in the form of chronic periduodenitis or as a subacute perforation, may lead to such deterioration of health and loss of weight, that when a tumour is discovered which persists and tends gradually to increase, it is apt to be mistaken for a malignant growth.

I related a well-marked case of this kind in my lecture on duodenal ulcer¹ that I saw with an eminent London physician. A distinguished surgeon had seen the case previously, and had pronounced the case malignant and hopeless. The drainage of a subphrenic abscess and the subsequent performance of a gastro-enterostomy resulted in complete and perfect recovery, and the patient is now well.

In the case of a naval officer suffering from hæmatemesis and melæna, with a history pointing to duodenal and pyloric ulcer of several years' standing, the tumour felt before and examined during the operation of gastro-enterostomy was most extensive, and its hard nodular feel, taken together with its adhesions to neighbouring parts—liver, pancreas, gall bladder, and colon—gave rise to a suspicion that the disease might be cancer; yet at an operation undertaken some months later for another ailment I had the opportunity of examining the site of the former tumour and found that it had entirely disappeared.

In another case of a professional man past middle age operated on for hæmatemesis following on symptoms of chronic duodenal ulcer I found a hard nodular tumour the size of a hen's egg, giving rise to some suspicion of cancer; yet the complete recovery after gastro-enterostomy and the perfect restoration to health, now lasting several years, absolutely proves that the disease was simple and not malignant.

The liver is not infrequently the site of simple tumours suspected to be malignant, and if they are associated with rapid loss of flesh and more or less jaundice, the conclusions as to cancer, with the inevitable hopeless prognosis, are very apt to be formed and expressed.

Only recently a tumour of the liver diagnosed as sarcoma by an eminent physician was sent to me with a view to surgical treatment. I am informed that it entirely yielded to mercury bichloride.

In another case, in an elderly statesman, seen some years ago with a leading member of the profession who had gone thoroughly into the history of the case, an incision into the suspected tumour and a microscopic examination of a portion removed proved its syphilitic origin. An illness of several months, associated with great loss of flesh and the development of a tumour in the right lobe of the liver, had given rise to the suspicion of cancer. Under specific treatment his health has been completely restored.

Some years ago a girl of 14 was transferred to my care from the medical side of the hospital with a large tumour of the liver, suspected to be sarcoma. It proved to be dependent on congenital syphilis, and yielded to general treatment.

Last year I saw a middle-aged gentleman who had returned home invalided from India with a tumour of the right lobe of the liver, suspected to be growth, as it was associated with great loss of flesh and deterioration of health. On exploration of the abdomen and of the tumour, it presented so suspicious an appearance that it was thought advisable to remove it, especially as no secondary growths could be seen, and as the tumour, being in an elongated right lobe, could be safely taken away. It was excised by a wedge-shaped incision, and afterwards found to be a chronic abscess containing inspissated pus and cheesy material too thick to flow through the exploring needle. To the satisfaction of the patient and his friends and those attending him, who had feared the disease might be cancer, the patient completely regained his health.

Did time allow, I could mention other cases in which hard, nodular tumours of the liver associated with loss of flesh, serious deterioration of health, and sometimes with ascites, had led to a grave or hopeless prognosis being given, but which proved on exploration to be gall stones,

calcified hydatid cysts, irregular cirrhosis, or other conditions capable of relief or cure. One case I have never been able to explain:—

A man of under middle age was admitted to hospital with pains in the gall-bladder region associated with great loss of flesh and the presence of a tumour of the liver. On opening the abdomen a tumour was found in and under the right lobe of the liver, and dispersed over the rest of the organ were numbers of light-coloured raised tumours the size of haricot beans. Those present at the operation agreed with me in the diagnosis of primary cancer in the gall bladder and adjoining part of the liver with secondary growths distributed through both lobes, and the abdomen was closed. Much to my surprise, the patient rapidly recovered, and ultimately completely regained his health. There was no history of syphilis, and no specific treatment was adopted either before or after operation.

In the gall-bladder region, tumours simulating malignant disease so frequently prove to be inflammatory swellings in or around the gall bladder or bile ducts that I think the benefit of exploration should never be lost sight of.

A number of cases of this description have been related in my work on *Diseases of the Gall Bladder and Bile Ducts*, so that here I will only mention one or two examples:—

I was asked about four years ago to see a lady of 72 suffering from a tumour of the liver thought to be cancer. She had never had any attacks resembling gall-stone seizures, but for some weeks had been bedridden on account of pain under the right costal margin, associated with a gradually increasing hard and nodular tumour, which could be readily felt in an elongated right lobe of the liver. I suspected gall stones, though the loss of flesh, deterioration of health, and absence of characteristic symptoms made the diagnosis doubtful. At operation a gall bladder full of large gall stones was removed from under the thin tongue-shaped process of liver, and the patient is well to this day.

A similar condition, also pronounced as cancer, I saw recently in a lady over 70, but associated with jaundice and a deeply-seated tumour, easily felt because of the patient having become so thin. The presence of a characteristic pancreatic reaction in the urine made me suspect gall stones in the common duct, with pancreatitis. At operation this proved to be the case, and there being no evidence of other disease, the patient made a rapid recovery.

Some seventeen years ago I saw a case that very much puzzled me, and to this day is inexplicable:—

I explored a tumour situated in the gall-bladder region in a woman of 66. It was nodular, hard, and not fluctuating, and had apparently invaded the liver, gall bladder, stomach, colon, and omentum. I pushed an exploring syringe into it in every direction, and found no pus and no evidence of gall stones, the needle seeming to pass through tissues like cartilage. The abdomen was closed and a very bad prognosis given, yet the patient recovered and was well several years later.

Could this have been an inflammatory swelling due to an undiscovered gall stone, or was it really a growth that manipulation caused to disappear?

The appearance and feel of a tumour composed of matted omentum and the viscera adjacent to an inflamed gall bladder are often very deceptive, and in two at least of my earlier cases, after exploring such a mass with a hollow needle, I closed the abdomen and gave a gloomy prognosis, which was proved to be wrong by the patients steadily improving and completely recovering. Before seriously interfering with the adhesions and thus being committed to the following out of a dangerous and futile operation, it is desirable to raise the abdominal wall and carefully examine the liver and adjoining parts so as to be assured of the absence of secondary nodules of cancer.

If in doubt, it is better carefully to detach the omentum covering the gall bladder itself, when it may fortunately turn out that the viscera are full of gall stones and pus, as in cases described in my work already referred to, in which inoperable cancer had been diagnosed and a gloomy prognosis given, but in which cure by operation was effected. Even if, as may happen in this region, cancer be discovered and proves to be local, a radical operation may be undertaken with a fair prospect of success, as in a case where, about eight years ago, I removed from a middle-aged gentleman a wedge of liver and the gall bladder affected with carcinoma, and he remains in excellent health to-day; and in another case, where in a woman aged 56 I excised the gall bladder, the pylorus, and a portion of the liver, the patient being now—well on in the seventh year after operation—in good health. In both cases the diagnosis was confirmed by the microscope. If, however, secondary nodules be seen or felt in the liver

or omentum, the diagnosis of irremovable disease will be at once arrived at and the abdomen closed without delay.

The following brief abstract of cases condemned as hopeless but afterwards operated on demonstrates my meaning better than a multiplicity of words:

Woman, aged 50. Jaundiced nine months; great loss of weight; pain not a prominent symptom, but present. Pronounced to be cancer by an eminent Manchester physician, and operation not advised. Operation, September 29th, 1892. Gall stones found in gall bladder and common duct. Cholecystotomy and choledochotomy performed. Good recovery. Quite well when heard of a year later.

Woman, aged 50. Jaundiced ten months; pain with ague-like attacks. Pronounced malignant by a distinguished physician in Sheffield, and operation deprecated. Operation, October 4th, 1892. Gall stones removed from gall bladder and common duct. Good recovery. Well in 1893.

Woman, aged 54. Sent to me for tumour in gall-bladder region associated with pain and jaundice. Gall stones diagnosed, but on opening the abdomen a hard nodular tumour discovered, yielding only blood to exploring syringe. Thought to be malignant, and abdomen closed. Complete and perfect recovery, and when seen some months later all trace of tumour had disappeared.

Man, aged 45. Painful epigastric attacks for twelve months, with vomiting. Deep jaundice for three months, with ague-like attacks. Loss of 2½ st. in weight. Distended gall bladder. Operation, March 29th, 1898. No gall stones. Tumour of head of pancreas discovered, with thickening of common duct, thought to be cancer. Drainage of gall bladder for ten days. Complete recovery. Quite well at present. The case was clearly one of interstitial pancreatitis.

Man, aged 39. Gall-stone seizures for five years, and discovery of concretions in motions. Operation, September 22nd, 1898. Gall bladder and liver infiltrated with what appeared to be cancer, though nodules not large enough to be felt through abdominal walls. Some gall stones felt deeply in bile passages. Thought to be useless to attempt complete operation. Patient recovered, lost his jaundice, gained weight, had no further recurrence of pain, and was reported to be quite well May 24th, 1899. This case I cannot explain, as there was every appearance of cancer of the liver.

Man, aged 51, said by eminent London physician to be suffering from cancer of the liver, and to be incurable. Jaundice intense for nine months; great loss of flesh; very little pain, and no ague-like attacks. The only suggestive symptoms were the history of intermittent pains in the upper abdomen some years previously, and a tender point at the usual spot 1 in. above and to the right of the umbilicus, which enabled me to diagnose gall stones in the common duct and to advise operation. Operation, September 21st, 1901. Six large gall stones removed from the common duct by choledochotomy. Good recovery. A letter in November stated that he had gained 1 st. 11 lb., that he had completely lost his jaundice, and was quite well.

All these cases go to support the proposition that if the diagnosis be doubtful and the patient be at all in a condition to bear operation, exploratory laparotomy should be performed; for not only may a removable cause of the jaundice be discovered, but it may fortunately happen that, even if the disease appear to be incurable on exposure, the operation *per se* may have some hitherto unexplained influence leading to recovery.

Were it desirable, I could very considerably amplify this list of operations in doubtful cases leading to a complete and perfect cure of patients pronounced by experienced and careful observers as hopeless, and in many of the cases the patients had been especially warned by their advisers on no account to consult a surgeon, lest he should be tempted to interfere.

In July, 1900, in a lecture delivered in London, I had the privilege of pointing out the frequency with which an inflammatory enlargement of the pancreas accompanies gall-stone trouble, especially common duct cholelithiasis, and which may not only persist after the original cause has passed away, but may simulate cancer of the head of the pancreas, and terminate fatally under this supposition, when by efficient surgical treatment great relief, or even possibly cure, might have been effected.

The following is a brief description of some of the cases on which I have operated:

A woman, aged 44 years, had for some time been suffering from deep jaundice with considerable pain, some irregular fever, digestive disturbance, and emaciation. At the operation on June 22nd, 1890, after separating a number of adhesions, I found a tumour of the pancreas embracing the lower end of the common duct, which at the time I thought to be malignant. The tumour was freely manipulated in order to ascertain if any gall stones were present in the common duct, but none could be felt, and as the gall bladder was contracted and there was some tendency to hæmorrhage from numerous

small points, I did not proceed further, and the abdomen was closed. Whether any concretion was pressed onward into the duodenum I cannot say, but the patient made a good recovery from the operation, and within a few months had regained her health. A letter received from her medical man states that she is well and in very good health.

A man, aged 37 years, had been operated on in a hospital for persistent jaundice. No gall stones were found, but a tumour of the head of the pancreas was felt, and the case was thought to be one of cancer of the pancreas. A biliary fistula had persisted, and though the patient was freed from the jaundice he remained feeble and thin. I performed cholecystenterostomy on July 13th, 1896. The patient made a good recovery, and gained flesh and strength. A year later he was well.

A man, aged 34 years, was seen in 1897. He had had painful attacks resembling cholelithiasis since June of 1896, and deep jaundice since December. The gall bladder was distended and easily palpated. The patient was extremely ill and emaciated. At the operation on February 25th, 1897, the gall bladder was found to be dilated and surrounded by numerous adhesions, but no gall stones could be felt. The head of the pancreas was enlarged and hard. Cholecystenterostomy was performed. The patient made a good recovery and rapidly lost his jaundice. He was in good health seven years later.

A man, aged 45 years, was seen in 1898, with the history that he had been well up to twelve months previously, when he began to have attacks of pain at the pit of the stomach, ending in vomiting, but not followed by jaundice until an attack on January 1st, 1898, since which time he had been deeply and continuously jaundiced. He had also from that time onward had ague-like attacks, and two days before seeing me he had had within twenty-four hours three of these seizures, each accompanied by pain. He had also lost considerably in weight. On examining him there was some swelling in the gall-bladder region, but no tenderness. The liver was a little enlarged, but the margins felt smooth. There was decided tenderness in the middle line, just above the umbilicus, and on deep pressure the pain was considerable, and an indefinite fullness could be felt. At the operation on March 30th, 1898, the gall bladder was found to be slightly distended and surrounded by adhesions to the pylorus, duodenum, colon, and omentum. No gall stones could be discovered, but there was well-marked swelling of the head and the first 2 in. of the pancreas, which though nodular and irregular was not very hard. Cholecystotomy was performed. The patient made a good recovery, and was in perfect health two years after operation.

These were all cases of chronic inflammation of the head of the pancreas and not in any sense malignant, though they would probably have ended fatally but for surgical intervention. Owing to increased experience and improved pathological methods these cases present fewer difficulties in diagnosis, so that it is generally possible to avoid giving a doubtful prognosis.

Had time permitted I could have given many more examples of tumours simulating cancer not only in the various organs I have referred to, but also in the kidneys and suprarenals, in the abdominal lymphatic glands and in the uterus, ovaries, and tubes, in which, on exploration, either simple tumours were found and removed or some curative operation was able to be performed, but I think I have given a sufficient number of examples to prove the claims I am advancing to justify me in advocating a more frequent resort to exploration, not only for diagnostic purposes in doubtful cases after every other diagnostic method has failed to elucidate the case, but also with a view to treatment at the same time.

At the present time it may be safely said that an exploratory operation *per se*, if undertaken with proper care and skill, is almost devoid of danger, so that even if, as will undoubtedly occur in some cases, no real good can be done no serious harm should follow.

I hope it will not be thought that I am advocating exploratory procedures as a cloak to careless or ignorant diagnostic efforts, for that is far from my intention. What I do say is that after every diagnostic effort has been made, and although the prognosis may seem hopeless, yet if there is any element of doubt about the case, the question of an exploratory operation ought to be seriously considered, as in some cases it will clear up all doubt as to the hopelessness of the case, in others it may show that an error in diagnosis has been made and a better prognosis may be given; in some cases what appeared to be an incurable tumour may prove to be capable of removal, and in others, again, a palliative operation may be possible that will either relieve urgent symptoms or stave off threatened obstruction of the passages in a hollow viscus, or, better still, unexpectedly result in cure.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, February 2nd, 1907.