TWENTY-FIVE YEARS IN SURGERY.*

BY

L. R. BRAITHWAITE, F.R.C.S.,

HONORARY SURGEON, LEEDS GENERAL INFIRMARY; DIRECTOR OF SURGICAL RESEARCH, LEEDS UNIVERSITY.

THERE comes a time in the course of every adventure when one stands to gaze backwards on the path he has already trod and forwards to what may be to come. I think there need be little excuse that one who has completed twenty-five years as a student in surgery should in such a manner hesitate, contemplate, and formulate. Inevitably an address of this kind is egotistical, but it must be understood that almost every opinion expressed has been moulded as much by one's association as by one's own experience.

The questions one first asks oneself are: "Has it been worth while?" and "Would you do it again in the same way?" I can answer that it has been well worth while, and that I would do it again in a different way. I would do everything better. I can say with entire honesty that I have done nothing perfectly; as has been well said, "An ideal is for pursuit, and not for capture." It is my conviction that in no other work can such variety of interest be found, such sympathy be created, and such gratitude be won.

In any attempt at a retrospect of twenty-five years in practice I cannot begin without acknowledging the very deep debt I owe to my early master and teacher, the late Edward Ward, and to my very close friend and colleague Lord Moynihan. These two men beyond all others have been my inspiration. I must also say that without the constant affection, confidence, and sympathy of those who have trusted me I could not have carried on with that happiness I have always had in my work. Comedy and tragedy have come to me as to all of us: comedy to lighten the burden of our responsibility, and tragedy to test our endurance and our faith. No one could be more sensitive to tragedy than I am, and there have been times, many times, when I have wondered whether I could or ought to go on—when I have lost assurance in my skill, my patience, or my strength.

I came into surgery at a time when the abdomen was beginning to take the foremost place—a place still, I think, in advance of that of any other branch of surgery. Bland-Sutton and Arbuthnot Lane were the big men in London; Jessop and Mayo-Robson in Leeds. That brilliant star Moynihan was just flashing into his supreme place in the "surgical sky." Operations in the abdomen were becoming commonplace, but still were attended by a high mortality, and were certainly followed by very painful and tedious convalescence. I remember abdominal sections completed by filling the abdomen with a solution of weak carbolic acid and inserting four gauze drains, one into each of the abdominal quadrants. These were also the days of the Bantock's pelvic glass drainage tubes, a prolific source of worry, of pain, and of post-operative adhesions. This was also the time of suppurating bones and joints, especially of the spine. One of my most vivid recollections is of the multitude of such cases appearing for dressing and of the prevalence of lardaceous disease. Gone indeed are all these, just as that very common medical disease chlorosis, which flooded the out-patient room, is gone.

Probably next to the war—that sterile chasm blasted across our path of progress—the most important change in the profession has been the passing of the National Health Insurance Act. This Act has, I think, been a help to most doctors. It has had no material effect on hospital practice, and has, in the main, been of service to the patients.

Reflecting on what has been achieved, my thoughts spring at once to the introduction of x rays and of radium. These two, the most marvellous advances in surgical science of our time, have revolutionized our work, and we have not yet seen the best of either. I remember the beginning of the radium epoch twenty years ago—its early promise, its early decline; and now we are fortunate in seeing its resurrection in a form so gigantic that it bids fair within the lifetime of all of us to eclipse in usefulness everything

that surgery has given to humanity—excepting the work of Lister, whereby alone radium is so far capable of being put to its effective use. When I remember those surgical masterpieces of my early teachers—the exquisite dissections of mouth, tongue, and neck, associated as they were with mutilations so abhorrent—I view to-day with a very special gratitude the marvellous results achieved with radium, especially as I never had the skill or the courage to deal adequately with malignant disease in this particular area by the usual operative means.

It follows when one has reached a "milestone" that he can take stock of each particular branch of his work and formulate on it definite views. It is possible that the views I have formulated may be of interest to you. What operations do I think right in each case? What do my colleagues who have to live with them afterwards tell me about the ultimate results? I propose to tell you these things as briefly as I can.

Chronic Appendicitis.

I will begin with the commonest abdominal condition we see—appendicitis. One fact stands out beyond all others, and that is the sooner an operation is done when acute appendicitis is diagnosed the better. I would like to omit the term "subacute appendicitis" altogether. I would include it with acute. Chronic appendicitis is the most difficult abdominal condition to diagnose *correctly*. Most cases diagnosed as chronic appendicitis are tuberculous of the ileo-caecal glands, or, more rarely, are renal or ovarian troubles. Some are due to the drag of a big caecum, part of a condition of abdominal ptosis. Twenty-five years ago no single case of tuberculous ileo-caecal glands was diagnosed or operated upon in the Leeds Infirmary; last year 37 were operated upon. Pelvic appendicitis, a very serious condition because so difficult to recognize unless the rectum be examined, has rightly come to occupy a definite place in our teaching and in our nomenclature. In 1904 the cases of acute and recurrent appendicitis operated upon at the Leeds Infirmary numbered 137; last year no fewer than 804 were operated upon. Of the former 14 died, of the latter 32 died. It is probably true to say that more lives have been saved by early operation on cases of appendicitis than in all other abdominal diseases.

Gall-stones.

Operations for gall-stones are no light matter; first, because there is still an appreciable operative mortality even in simple cases, and, secondly, because there are far too frequent recurrences. Removal of the gall-bladder does not preclude the re-formation of stones, and while realizing that stones may be left behind in the bile ducts, I am of opinion that this alone does not account for the frequency of recurrence. It is said that the recognition of a small stone in the common duct is an easy matter. I have found it one of the most difficult things I have to do.

I do not believe in operations for gall-stones after one attack. In my opinion exercise, dieting, and treatment by drugs (the best of which is hexamine glycocholate) offer a good chance of permanent cure. Such a line of treatment should, of course, follow every operation done for gall-stones, realizing that the basal cause (probably an increase in blood cholesterol) is still to be dealt with.

I have come more and more to the view that in many cases where the gall-bladder is in good condition, and where well-marked pancreatitis exists, the proper operation is removal of stones followed by a cholecysto-duodenostomy. I do not think removal of a gall-bladder, even a fairly healthy one, does any harm, but it is a more serious operation than cholecystotomy or cholecysto-duodenostomy. It may be one of the most difficult as well as one of the most dangerous of all abdominal operations.

I believe in removal of the appendix as a preliminary part of an operation for gall-stones, on the supposition that it is an organ likely to give trouble, and also because it may be the source of that low type of infection of the biliary tract apparently necessary with other things to the formation of stones. In 1904 there were 45 operations for gall-stones in the Leeds Infirmary, 7 of which were fatal. Last year there were nearly 200 such operations, and 30 of the patients died.

* An address to the Huddersfield Medical Society.

Gastric and Duodenal Ulcers.

I have a more personal interest in the surgical treatment of gastric and duodenal ulcer than in any other condition, and you will expect me to have definitely crystallized views.

In 1904 not a single case of duodenal ulcer was operated on under that name in the Leeds Infirmary, but there were 69 patients with gastric ulcer, of whom 11 died. Last year 89 patients with simple gastric ulcer of all kinds were operated upon and 15 died, while no fewer than 216 cases of duodenal ulcer of all kinds were operated upon, with only 23 deaths. Of these patients no fewer than 107 had perforated ulcers, and 19 died.

I am of opinion that gastric and duodenal "ulcers" are appearing and disappearing in most of us. They begin as erosions of Peyer's patches, and are due to infection by lymph stream from the intestinal tract, probably the ileo-caecal angle. Every attack of serious indigestion means one erosion or more; every cure of such an attack means the healing of an erosion. I would call an ulcer an unhealed erosion—unhealed because its situation makes it liable to injury and incapable of rest, and because of some quality in the gastric juices of which we really know very little. Certainly it is not a matter of hyperacidity alone. I think the presence or absence of bile is an important factor.

I believe in the cure of an early gastric or a duodenal ulcer by medical means; but they are not all cured. Can I lay down any time limit when surgery should step in? And when surgery has stepped in, what of the future? We all know those distressing acute ulcers which perforate or bleed. These ulcers have been held up as a reason for early operation, but we have not yet arrived at a stage when we are capable of diagnosing them. They are frequently without symptoms. Certainly such acute ulcers are very rarely found by x-ray diagnosis, and other methods of investigation have been singularly unhelpful. The Rehfuß and other stomach contents tests have been disappointing in my experience. I have come to the conclusion that any ulcer clearly shown by x rays will not disappear permanently and fully except as a result of operation. Obviously perforation needs operation; but does haemorrhage? One haemorrhage does not, but two haemorrhages do. When I operate for perforation or for haemorrhage I like to do something to try to ensure the cure of the ulcer.

Treatment of Duodenal Ulcer.

I do not think we can discuss the treatment of duodenal and gastric ulcer in conjunction. They are, in my view, as different in their treatment as in their symptomatology. To take duodenal ulcer first, there is little doubt that the early symptoms of the chronic ulcer are those of hyperchlorhydria, a vague term indicating relief of symptoms by alkalis or by food. In my opinion treatment by Maclean's alkali method—really nothing more than we did when I was a student, except that Maclean makes it intensive—is the right method to pursue, remembering that regularity and appropriate meals, adequate exercise and mental peace, and removal of septic foci, are essential to success. I would suggest that medical treatment should go on for twelve months, but an x-ray examination should be made much earlier. The essential features of medical treatment are persistency and regularity.

I think very few duodenal ulcers are found on x-ray examination. Distortion of the duodenal cap and pyloric stenosis with increased gastric peristalsis are the usual findings. If these are found, or if the crater of an ulcer is seen, then I think operation should be undertaken. In the absence of any x-ray findings, if the symptoms are persistent and worrying, I should advise operation after twelve months' medical treatment. One can afford to wait if the patient will submit, because malignant disease practically never occurs.

The question of what operation shall be done is still a matter of controversy. Experts in radiology tell us that the best results are those where a short-circuit opening is a very small one, in fact where nothing appears to go through from the stomach, and only intestinal contents regurgitate. If this is a fact we should indeed pause and think whether gastro-jejunostomy is the right operation.

An appreciable percentage of duodenal ulcer operations is unsuccessful. They relieve; they ensure by suture of the affected area that perforation, and probably haemorrhage, shall not occur; but they replace one kind of indigestion by another not so bad and not so dangerous. In addition they sometimes render the patient liable to unexpected high intestinal dyspepsia with diarrhoea coming on for no apparent reason immediately after the ingestion of innocuous foodstuffs. Occasionally the duodenal ulcer is replaced by a jejunal ulcer, a very much more serious matter.

I have definite views on the operative treatment of duodenal ulcer. I would, of course, remove the appendix, and burn out and suture the ulcer area, but would prefer a gastro-duodenostomy to a gastro-jejunostomy. This operation has been strongly advocated by my colleague Mr. Flint, and I have practised it whenever possible. Why should a gastro-duodenostomy be preferable? I think because it allows a better reflux of duodenal contents into the stomach—a reflux we know to take place towards the end of digestion in normal health. In addition, it allows food to remain in the stomach for the purpose of digestion longer than a gastro-jejunostomy does.

Treatment of Gastric Ulcer.

Now gastric ulcer is entirely different. I do not agree that gastric ulcers are very liable to malignant degeneration, but I have often seen this happen, and I feel, therefore, for this reason, and because gastro-enterostomy is rarely satisfactory in my hands, that the proper operative procedure is partial gastrectomy. Medical treatment should be as for duodenal ulcer, but it is easier to get an x-ray picture of a gastric ulcer, and when an ulcer is diagnosed by this means, in my opinion it will not heal permanently by any other than operative treatment. I do not mean that every ulcer can be diagnosed by x rays, but it is not my practice to operate for gastric ulcer in the absence of a positive x-ray report. I recognize that MacLean claims definite cures of both gastric and duodenal ulcer by the intensive alkali treatment. Such cures he supports by x-ray evidence. Neither my medical friends nor all my surgical colleagues can claim similar success by the same means applied in the same way.

Now although partial gastrectomy is the operation for gastric ulcer, and gives, I think, better results than gastro-jejunostomy for duodenal ulcer, the operation may be very difficult and is dangerous; it may even be impossible. In the latter circumstance excision of the ulcer with a gastro-enterostomy is most favoured, though I myself have done a large number of cholecysto-gastrostomy or gastric bilification operations, with results which have gratified me in the main. Merely to excise either a duodenal or a gastric ulcer is not enough; the disordered physiology of the stomach has to be repaired if recurrence is to be avoided.

In both gastric and duodenal cases the "cure" does not finish with the operation; I do not think it ever finishes. The patients must go on all their lives taking care in their habits and their diet. The abuse of smoking has been considered an important factor in both gastric and duodenal ulcer. I am of opinion that moderate smoking is not deleterious, but I am in the habit of prohibiting abuse.

Miscellaneous Operations.

I have been almost consistently disappointed with my work on malignant disease, excepting that of the breast and large intestine. I do not advise early colotomy for carcinoma of the rectum in the absence of the possibility of cure of the disease.

My prostatic work has been successful. The introduction of an almost routine two-stage operation has lowered the mortality in private practice very markedly, though it is still too high for my happiness. In infirmary practice, however, last year twenty-eight patients were operated upon by the one-stage operation and seven died, whereas of twenty-three operated upon by the two-stage operation only three died.

For some years I was in the midst of short-circuiting and resection for abdominal ptosis, particularly of the large intestine. I am glad to say I never did either

myself. I know the results were not good, and these operations have almost ceased to be performed at Leeds. It is, however, only fair to say that there are still surgeons who would have us continue on the old lines.

Outside the abdomen, operations on the thyroid and hernia operations remain about as they were when I began, with much the same good results. A great advance has, however, been made in the surgical treatment of exophthalmic goitre.

It has been said that surgery has gone as far as it can; that it is as perfect as it can ever be. I do not agree with either view, and most certainly not with the latter. I would instance the mortality from pulmonary and cardiac embolus in patients who are apparently first-class risks; nothing has been done to combat successfully this, our biggest risk and most dreaded catastrophe. I believe there are yet bigger fields to conquer and better plans and material to be found for the campaign. The perfect anaesthetic is yet to come, and better methods are needed of preventing and dealing with post-operative ileus. Radium is narrowing the field, for it is taking away from us the most unproductive and disappointing of all our efforts; but what a vast deal remains to be done, particularly in dealing with gastric and duodenal ulcer, gall-stones, and enlargement of the prostate.

Conclusion.

A great deal has been done to popularize spinal anaesthesia. High spinal anaesthesia has never been accepted, while various kinds of local anaesthesia combined with general have had, and are having, their day. Intratracheal, intradermal, intravenous, and rectal general anaesthesia by all kinds of methods and machines have heralded a "perfect" anaesthetic. Nitrous oxide, oxygen, and carbonic acid gas have had their place in the procession, while drugs like scopolamine, morphine, hedonal, avertin, and a host of others, have been hailed with acclamation. Ether and chloroform have been always with us, and I think stand unrivalled. Methods of administration have changed in bewildering fashion, but the greatest improvement has undoubtedly been the conditions under which anaesthetics are given. The preliminary hypodermic of scopolamine and morphine, the absolute quietude and semi-darkness of the surroundings, the initiation by nitrous oxide followed by ether—all these things have indeed made an operation a much less terrible business than it was twenty-five years ago.

I have realized after all these years that one may have skill, courage, perseverance, and power, but more than these is essential. An understanding mind and a sympathetic spirit constitute the priceless asset. These two qualities come to most of us only after years of practice. They largely constitute what is meant by "experience." These two things a patient, driven as he is to distraction by fear and doubt, will move heaven and earth to find.

ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE.

BIENNIAL DINNER.

THE biennial dinner of the Royal Society of Tropical Medicine and Hygiene was held at the May Fair Hotel, London, on May 22nd, with the president, Dr. G. CARMICHAEL LOW, in the chair. When the loyal toasts had been honoured, the chairman expressed the society's thanks to Sir John Rose Bradford, P.R.C.P., for taking the place of the Marquess of Reading, whose health had prevented his attendance.

SIR JOHN ROSE BRADFORD, proposing the toast of "The Society," said that medicine as a whole had three functions: to relieve, to cure, and to prevent; the last was the greatest. Tropical medicine was a branch of medicine as a whole, and had faithfully served the highest objects of medicine. No other branch of medicine had during the last fifty years produced such striking results, and tropical medicine should be justifiably proud of its record. Its work was recognized by the commercial world, the industrial world, and the Government. An extraordinarily important part in the development of tropical medicine had been played by British workers. It had been well

said that Great Britain produced great men in medicine, but did not always appreciate the greatness of the men she produced. One reason for the remarkable development of tropical medicine was its close association with the ancillary sciences, particularly zoology, and one of its attractions was the possibility of combining exact clinical and exact scientific work. One way of showing appreciation of the great men who had been members of the society would be to provide it with a suitable home.

THE PRESIDENT, in reply, mentioned the work of Sir Patrick Manson and of Sir Ronald Ross, and enumerated some of the other leaders in tropical medicine and hygiene who had been members of the society since its foundation in 1907. The proposal to build a house for the society was a matter which he had deeply at heart, but a great deal more money was needed before the "Manson House" could be opened. Dr. Low paid a tribute to the work of the officers of the society, particularly Miss Mildred Wenyon. He visualized the society in its new home as the head of tropical medicine for the whole world—a society which would institute research, discuss imperial problems, and have meeting rooms where those returning from the Tropics could get into touch again with medicine and home.

DR. P. MANSON-BAHR, proposing the health of "The guests," regretted the absence of Dr. Drummond Shiels, M.P., a pillar of strength in work, war, politics, and play, and Sir James Michelli, treasurer of the Seamen's Hospital Society. Likening the gifts of the society's guests to those of an international football team, he paid compliments in turn to Sir John Rose Bradford, Lady Manson, and Mrs. Albert Chalmers; Lieut.-General H. B. Fawcett, Director-General A.M.S., Surgeon Vice-Admiral Gaskell, Medical Director-General R.N., and Air Commodore J. McIntyre, Director-General R.A.F.M.S.; the Editors of the *Lancet* and the *British Medical Journal*; Sir James Maxwell and Colonel Reginald St. Johnson, Governor of the Leeward Islands (both members of the medical profession), and Sir Herbert J. Read, ex-Governor of Mauritius; Mr. Donald Armour, president of the Medical Society of London, Professor Frederick G. Hobday, principal of the Royal Veterinary College, and Sir Basil Blackett, chairman of the Colonial Development Advisory Committee.

SIR HERBERT READ, replying, associated himself with the tribute paid to the memory of Sir Patrick Manson, and agreed that it was impossible to overrate the importance of tropical medicine and hygiene. The death rate among European officials in British West Africa had fallen in thirty years from 70 to 9 per 1,000, and in Mauritius and Jamaica the figures compared not unfavourably with those of towns in this country. Admiral GASKELL, also replying, spoke of the strong and friendly connexion between the society and the Navy. He had been to almost every foul part of the world which existed, but had not contracted all the diseases which he might have contracted, thanks to the magnificent work of experts in tropical disease. Great Britain needed a strong Navy much as an individual needed personality—to prevent people playing games of bluff—and one of the ways of maintaining the personnel at its very best was the prevention of tropical disease.

Colonel W. P. MACARTHUR, proposing the toast of "The Chairman," said that there was hardly a single major quality desirable in a president that Dr. Low did not possess. In the first place, it was popularly rumoured that he was a Scotsman; and for any Scotsman to join the ranks of an organized body was but a preliminary step to becoming leader of it. Another desirable quality in the president was his wise caution; he could never have found himself in the unhappy position of having to eat his own words. Colonel MacArthur recalled Dr. Low's classical work on filariasis and malaria, and mentioned a paper by him and Manson on the intestinal ulcers of kala-azar. Dr. Low had served the society well in many offices, and in collecting funds his precept followed his own magnificent example. His kindly nature, his honesty of purpose, his sturdy loyalty, and his sense of humour had endeared him to all, and those who knew him best could best testify to the strong leaven of humanity underlying his austere devotion to professional duty and his determination to add still further to his already stupendous list of causes of enlargement of the spleen.