Section of Surgery

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President's Address

Palliative Surgery

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In these days of rapid progress and changing outlook a President can scarcely hope to be in advance of his audience and recognizing this I have chosen a subject which invites us to pause for a moment to examine our objectives and to wonder whether we are chasing the right butterfly.

Increases in technical resources in surgery and in perfection of anæsthesia have in some ways increased the difficulties which a surgeon must face. In the surgery of non-malignant disease, extensive and intricate operations are now so nearly safe that we are left wondering whether there is any excuse, except laziness and cowardice, for doing less than the maximum. In malignant disease there never was much excuse for tinkering and now there is none. I do not think that any of us ever enjoyed explaining that we had done the wrong operation because the patient would not stand the right one and, mainly because of the increasing skill of our anæsthetists, operative risk has almost ceased to be a factor in choice of operations. If the chance of cure exists the curative operation is feasible, and the problem now is to decide when almost certain palliation is better than a minimal chance of cure and when the rewards of a palliative operation are greater than its cost.

In case there is any doubt as to the meaning of my title perhaps I should explain that to palliate is to cloak, and palliative surgery must by derivation be interpreted as surgery which cloaks or hides disease without arresting its progress. Although this is the correct literal interpretation, the term palliative is more generally used to cover operations which will relieve without necessarily curing and this is the definition which I propose to adopt.

The word cure can be variously interpreted. On the one hand there is the extreme interpretation of the French surgeon who is said to have announced triumphantly at the end of a protracted and not wholly successful operation 'le malade est mort, mais il est mort guéri'.

On the other there is the more factual but less exhilarating pronouncement that the ultimate prognosis for us all is hopeless, implying of course that cure is not a realistic objective. Both the extreme philosophies are fallacious, but there is something in each of them and to choose correctly between the objectives of cure and palliation the surgeon must adopt something between the two.

The obvious field in which to search for a comparison between palliation and cure is the surgery of malignant disease, and much of what I have to say will be on this subject, but before I come to the main theme I should like to draw attention to the large part which palliation plays in the accepted surgery of nonmalignant disease. Here the word cure ought surely to mean restoration to normal – but how often do we achieve this?

I wonder which orthopædic surgeon would dare to tell us that he had cured a hallux valgus? To do so he would have to restore a fallen transverse arch, straighten an erring toe and remodel perfectly a whole series of intricate little joints. Of course he does nothing of the sort, but by proper use of his skills produces a foot which is a joy to use, and even if it is something short of a joy to behold it does at least cease to be a sorrow. This is palliation of a very high order, and might well serve as an example of what palliation can achieve for the welfare of the human race.

Reconstruction is always difficult and generally imperfect, so it is perhaps best to reserve the word cure for removal of an innocent but unwanted excrescence such as a hernial sac or removal of a diseased and unwanted organ. As diseased and unwanted organs apart from the appendix and the gall-bladder are rare, we are led to the conclusion that curative surgery in non-malignant disease comprehends little more than appendicectomy, cholecystectomy and herniotomy. This painful truth dawned on many of us

old ones between 1939 and 1945 when we found that our duty to produce fit men for the fighting line was best performed by labouring interminably among the hernias, gall-bladders and appendices.

Even in this simple field history has something to teach us about the relative merits of cure and palliation. Palliative treatment of acute appendicitis came back for a short time about twenty years ago, but I hope it has gone again for ever and there must now be few people who would be content to estimate the necessity of operating on an appendix abscess by repeated measurements of the distance between the umbilicus and the anterior superior spine. The pendulum swung finally to the side of radical surgery when modern anæsthesia and antibiotics came to the aid of the more radical surgeon and a sufficient number of the more conservative sort had seen general peritonitis develop after they had drained an apparently localized appendix abscess without removing the appendix.

The position with regard to the gall-bladder is a little different and I should like to record my own experience of an almost forgotten, but highly successful palliative operation. This is cholecystostomy combined with extraction of stones. I have used it several times when dealing with acute or subacute calculous cholecystitis in old and frail people. It is suitable only for cholecystitis associated with obstruction at the neck of the gall-bladder and it is essential to make sure that the obstructing stone is removed. The trauma of the operation is small and is well tolerated even by old and feeble people. I have not done this operation many times, but it is unique in that I can claim 100% of successes with no mortality and no recurrence of symptoms. I am sorry to say that I cannot claim any of these for cholecystectomy in younger and stronger patients.

Malignant Disease

There is no doubt that most cancer sufferers in this country are well advised and well treated, but I often wonder whether when we advise them we are really quite sure about our aims. Unthinkingly one might say that the aim is cure. This of course is excellent, if we understand what we mean by cure of malignant disease. Does it simply mean prolongation of life to near its proper span or does it imply continued ability or continued happiness? If so, how often do we really cure a woman with carcinoma of the breast and how often do we leave a rather resentful creature who never quite gets back into the herd? How often by prolonging life do we really add to its sum of happiness, and how often do we prolong the quantity of life at the expense of its quality? Who is chiefly concerned in the result of the operation? Is it the patient, the patient's wife, his children or even the community? If the patient, what does he really want? Is he a scholarly recluse who only needs another six months of existence to complete his life's work, or is he one whose existence will be a misery if he cannot eat, drink and talk in public? All these questions must live in the minds of *thinking* surgeons (and in spite of what some other branches of the profession say, most of us do think). The sorting of the data would baffle the most expensive computer, so it is not surprising that surgeons sometimes get the answer wrong; I think it generally works out that cure is an excellent target, but it is no use firing at it if it is hopelessly out of range.

Thus having (if we can) defined what we mean by cure and palliation in malignant disease we have next to decide which is to be our target. If the target is palliation surgery can often play a part, but the decision as to whether it should be allowed to do so calls for humanity, sympathy and much surgical knowledge. At all costs we must avoid the so-called palliative operations which fail to cloak the symptoms of the primary disease and introduce a further burden for the wretched patient to bear.

I refer here mainly to the 'ostomies', gastro-, col-, trache- and cyst-. It is my hope that I shall never again be called upon to do one of these without attacking the primary growth at the same time.

In my young days gastrostomy was the usual fate of a patient with a growth of the œsophagus or cardiac end of the stomach, as it was then generally assumed that gastrostomy was the alternative to death by starvation. Now the operation has virtually disappeared and it is difficult to know exactly why. We should like to think that the change is due to the increased possibilities of curative surgery. This is true to some extent of carcinoma of the cardiac end of the stomach, but for the œsophagus the high hopes raised in the middle 1940s, when the feasibility of transthoracic approach became clear, were soon dashed by the mortality and the long-term results. Intubation, a method which is now well over one hundred years old, has gained something through the use of new materials, but has few really enthusiastic supporters. Radiotherapy has fallen short of expectations as a cure, but remains as the most useful form of palliation. Used in this way it is a very powerful weapon in the avoidance of gastrostomy, but I think it must be admitted that much of the change of attitude towards gastrostomy is due to our having realized that mechanical obstruction by growths is often intermittent and that an obstruction which is virtually complete may appear and disappear for no very obvious reason. Knowing this and knowing the

weariness of life with a gastrostomy we are now readier to delay the operation, and in the vast majority of patients it is never done.

Colostomy without removal of the obstructing growth is different because it may postpone death for a time, but by and large it produces very little benefit and a great deal of misery. A patient with both growth and colostomy is in a pitiable condition, and to justify colostomy without removal of the growth there must be very strong reasons for wishing to prolong a life which is so difficult to tolerate. Even to admit the possibility of doing a colostomy without removal of the growth has its dangers, because it is a temptation to a timorous operator and once the possibility is admitted it will result sooner or later in leaving a removable growth *in situ*. As an instance, I recently removed a rectum from a patient three years after a palliative colostomy had been done and although the growth was not curable it was still removable. Even worse damage can be done by doing a colostomy in a patient who is suffering from subacute obstruction from widespread malignant deposits in the peritoneum. Although these are often associated with obstructive symptoms the obstruction very seldom becomes complete. In many cases it affects the small intestine as well as the large and a so-called palliative colostomy leaves the patient with the terrible combination of an inefficient colostomy in a distended ascitic belly. If the deposits originate from the ovary the possibility of almost complete regression with cytotoxic drugs must be remembered and gives an additional reason for avoiding colostomy.

Tracheostomy is in much the same position as colostomy in that it is a very tolerable disability when it is the necessary conclusion to a radical operation for an operable carcinoma, but may be the last straw if it is added to the trials of a growth which cannot be removed.

In the former class I well remember an old hero of the Trotterian era whose profession it was to sell coal by the sack in the Bloomsbury district. This he did with the aid of an open cart and a shaggy but most amiable horse, and he used to announce his presence in the Bloomsbury squares in a voice which was calculated to penetrate to the basements. His partial laryngectomy left him with sufficient inspiratory obstruction to require a tracheostomy, but his expiratory volume and power were if anything increased. I often watched his technique with admiration. It consisted of filling his capacious chest through the tracheostomy, obliterating the stoma with a grimy thumb and letting loose the accumulated pressure through what remained of his larynx. He was a happy man in spite of his tracheostomy because it did not interfere with his professional life which consisted of selling coal or his social life which consisted of drinking beer.

I have seen patients in the terminal stages of carcinoma of the pharynx or thyroid with a tracheostomy which has been done in order to make sure that the patient will not die of asphyxia. I have also seen patients who have died from the same conditions without a tracheostomy and I think that on the whole they have an easier passage. My experience is limited but it seems to me that the patient who dies with an unrelieved upper respiratory obstruction does so in much the same way as the patient whose cardio-respiratory mechanism is upset from other causes, and can be eased out of life by similar measures without the additional burden of a tracheostomy.

The last of the ostomies is cystostomy and surely this is the most grievous end to life which can be inflicted on anyone. There are so many alternatives now with non-irritant catheters, transurethral resection, and ureteric transplantations that it may be unnecessary to mention cystostomy in order to condemn it. I do so because there is a generation growing up which does not know what the miseries of a cystostomy are.

So we say good-bye to the ostomies with no regret. They were simple operations which could be done quickly and called for little skill. They were the cause of much misery and too often they were used to fob off a patient who could have been made relatively happy by a properly designed by-pass or a palliative resection.

After the ostomies come the 'otomies'. In palliative surgery this generally means division of nerves or nerve tracts, and surely for the relief of a patient racked with pain this seems a rational and reasonable measure? Why is it then that we have all seen cases in which it proved to be a dismal failure? Is it that a receiving centre which has been bombarded with painful impulses over a long period sheds some of its load into adjacent parts of the brain or do the nerves or nerve tracts undergo some organic change far above the organ in which the pain and the painful impulses originate, or does the relief of the greater pain allow the lesser to take its place? Be this as it may, division of peripheral nerves seldom relieves the pain of malignant disease, and sometimes produces a combination of pain and anæsthesia which is more distressing than the original symptoms.

What I have to say about palliation by section of nerves or nerve tracts is perhaps best summed up by saying that in order to be successful a nerve section must be made far enough, wide enough and soon enough. Thus, to take simple examples, section of intercostal nerves for relief of pain from a growth in the chest wall would fail because it

would not be far enough from the causative lesion. Division or even injection of posterior roots might succeed. For a lesion in the mouth or tongue division of individual branches of the V nerve would fail because the operation is neither far enough from the lesion nor wide enough in its extent. To stand any chance of success it would be necessary to divide the V nerve at its root and to cut off the sensory supply from the upper two or three cervical nerves. To advise the operation soon enough but not too soon is difficult, but it is certain that nerve sections undertaken in desperation when all else has failed are very disappointing. To succeed they must be part of a plan which takes account of the present and the future, and is designed to avert an intolerable pain rather than to abolish it.

In pursuit of the ideal of going far enough from the causative lesion both cordotomy and leucotomy must be considered.

Leucotomy does not relieve pain, but modifies the reactions of the patient so that they are less distressing to the onlooker. This obviously carries some advantages, but is hardly a justification for putting out of action the higher centres which may be the only things left which can give the patient any pleasure. Cordotomy is different, but the objective of 'far enough' is just as important here as in the periphery and for pain in a lower limb the section must be well above the mid dorsal region. As in all unilateral nerve sections the risk that an ipsilateral section will uncover a contralateral pain is quite real and when the pain is due to a pelvic growth which has already impaired the nerve supply to the bladder a cordotomy may produce incontinence.

Thirdly, the 'ectomies' or palliative resections. These are most useful for growths affecting the stomach, intestine and rectum; and I firmly believe that for the benefit of the human race we should cease to talk of these growths as operable in the sense of curable and simply ask ourselves whether the primary lesion is removable. All of us can remember resections which have been labelled as palliative and have yet produced cure. This is rare but important. When palliative surgery simply achieves its object of removing the primary growth it does not prolong life much, but it makes a tremendous difference to its quality and is very well worth while. It is a severe discipline for the surgeon to go methodically and carefully through the steps of a resection knowing full well that the chances of cure are negligible, but it is right, and the results of palliative resection of the stomach, colon or rectum justify any amount of time and trouble and any amount of risk.

As I am known to have some special interest in the surgery of malignant disease in the mouth and pharynx I should perhaps say a word or two about the part which palliative surgery plays in this.

If the object is prolongation of life, there is no purely palliative measure which is of any value. Tracheostomy and gastrostomy I have already mentioned and dismissed. Diathermy excision for a fungating growth may give a temporary relief, but as most of the symptoms of inoperable mouth carcinoma come from deep extensions the benefit is generally very small and very transient. Section of the root of the V cranial nerve ganglion together with a cervical neurectomy is of value in a few cases, but by the time this operation has been considered, sanctioned and performed the patient is generally in a condition in which morphia is a better answer.

Palliation by irradiation and by cytotoxic drugs is only on the border-line of my subject. In general, irradiation of a growth in the mouth is much like surgery in that it may cure or fail, but seldom palliates. The potentialities of cytotoxic drugs are obvious but only the future can tell us where their place will be.

The position with regard to palliative resection is no better. I have pointed out elsewhere that a surgeon who operates for malignant disease in the mouth and pharynx must expect two failures for every success and it is seldom possible to do more than guess which two will be the failures and which one the success, but an operation which fails to get rid of the primary growth seldom prolongs the life of the patient.

Thus palliation is an unrealistic aim in carcinoma of the mouth and pharynx and it is wiser and more honest to try for cure and accept failure as the only alternative. In this connexion we have all heard it said that the risk, the shock and the mutilation of a radical operation in this region are too terrible to contemplate. This is an understandable human reaction but the statement usually emanates from those who have not been forced, as I have, to see the final stages of an unrelieved cancer and are not familiar with the sort of life the mutilated patient manages to live.

There is of course every reason for avoiding risk, shock and mutilation if one can do so without jeopardizing the chance of cure and there are quite a lot of cancers in the mouth which can be cured by irradiation and should be so treated, but two facts must be remembered. The first is that quite a lot of growths in the mouth cannot be cured by irradiation and may be made much worse. The other is that when irradiation fails to cure it generally fails also to palliate, and it is very wrong to continue irradiation with the label of palliation when there is a chance of cure by surgery.

Although palliative surgery has nothing to offer for a primary growth in the mouth, it does come

into the picture in patients who develop malignant nodes in the neck after the primary has been controlled. In spite of all the efforts which are made to follow cancer patients closely I still see quite a number in whom for one reason or another malignant nodes in the neck have been allowed to progress untreated until it is clear that there is little prospect of being able to perform a radical curative resection. If nodes at this stage are left untreated they produce severe pain and generally ulcerate through the skin before death occurs. If they can be excised without cutting across obvious growth the operation is very well worth while, and even when I have had the greatest difficulty in peeling the malignant nodes off the great vessels, I know there is a very considerable chance that the patient will escape recurrence in the neck, and will finally die after much less suffering from an internal metastasis. It is of course possible to excise part of an involved carotid artery and replace it with a graft. I do not think that this increases the chances of successful palliation much as a growth which has involved the wall of the artery has generally spread too widely elsewhere in the neck to be removed without a big risk of local recurrence.

It is perhaps not out of place to add here that palliative resection of malignant glands in the groin is also very well worth while as a means of making the remainder of the patient's life less miserable. The operation itself carries penalties which every surgeon knows, but they are nothing to the misery of a foul sloughing ulcer in the groin which fixes the hip and confines the patient to bed and ends with a secondary hæmorrhage. The surgeon who refuses to excise malignant glands in the groin which are removable because there are metastases elsewhere takes a very heavy responsibility.

The fourth and last type of palliative operation which I wish to mention is the by-pass. Operations of this type are often very helpful if they are properly planned. A good example is the by-pass operation for obstructive jaundice due to carcinoma of the pancreas. I use this operation quite a lot because my own results from resection of pancreatic carcinoma are gloomy in the extreme and I do not remember ever to have seen a patient who has had a worth-while life after pancreatectomy for a true pancreatic growth. On the other hand I have had several patients treated by palliative operations who have enjoyed a year or so of good quality life before their disease has caught up with them. This is perhaps not much, and to obtain it the surgeon must be prepared to perform a quite elaborate operation. A Roux loop of small intestine is first constructed. The common bile duct is then divided and its proximal end is anastomosed to the free end of the loop. The more distal part of the loop is anastomosed side-to-side to the stomach as a protection against the later effects of duodenal obstruction. This is a troublesome and time-consuming operation, but the results are far better than those given by a simple cholecystoduodenostomy. It is a fair example of the rule that good palliation comes only of good operations. Incidentally, it is not true that pancreatic carcinoma is necessarily painful. Sometimes it is, but in other cases pain comes late and is never very significant.

One more by-pass operation must be mentioned as very well worth while. This is œsophago-jejunostomy for an irremovable carcinoma involving the cardiac end of the stomach. Growths in this position are often irremovable, but the patient can be made much more happy and comfortable by an operation which short-circuits the stomach by bringing a Roux jejunal loop up through the diaphragm and anastomosing it to the œsophagus. Below the diaphragm the jejunal loop lies in the retroperitoneal tissue in front of the kidney and behind the tail of the pancreas, and it is brought into the chest through an incision in the extreme posterior part of the diaphragm.

So much for the traditional type of palliative operation. Some belong to the past, many are performed at present and some will survive into the future. It is difficult to point a moral, but I think the conclusion must be that there is a place for well-considered palliative operations in the treatment of both malignant and non-malignant conditions. In dealing with non-malignant lesions there are occasions when it is wiser to palliate with little risk than to take the bolder course of attempting cure. In dealing with malignant disease it must be accepted that in order to be successful palliative operations must be planned and executed as major proceedings. The patient with only a few months or a year to live is not a discard and to treat his disease by the simplest form of ostomy or anastomosis is very unkind. It may be better not to attempt relief by surgery and to rely on drugs, but if a palliative operation is to be performed it must be done expertly and with no limit to the time and effort which it involves. If this principle is accepted it is surprising how many people with malignant disease can be helped to pass the last year or so of their life in comfort and often in useful employment.

I should like to take a few more minutes to look at the palliative operations which have come into the picture quite recently and will almost certainly have some part to play in the future. They are typified by ovariectomy, adrenalectomy and destruction of the pituitary gland in patients suffering from carcinoma of the breast.

I shall not attempt to deal with these in detail because they cannot be considered without

bringing in treatment by hormones, and having got so far as hormones it is impossible to stop without saying something about cytotoxic drugs. These measures represent a different form of palliation. They are of considerable value now and are tremendously important as a pointer to the future because most of them aim to control cancer rather than to eradicate it.

At present their usefulness is limited by the penalties which they exact. For the sake of posterity it is probably better that we should press on undeterred by these, but for the sake of our present patients we must take a balanced view, and make sure that the added months or years of life are a blessing and not a burden. I think this is one of the aspects of cancer treatment in which surgeons might learn much from closer contact with general practitioners. There is much satisfaction for us as surgeons in controlling the symptoms of carcinoma of the prostate with stilbœstrol or watching the regression of pleural deposits from carcinoma of the breast under treatment with male hormones. The general practitioner sees the reverse of the picture in the havoc created in the home by the man who has lost his masculinity and the woman who is rapidly taking on male characteristics. I do not wish to overrate this side of the picture, but in my experience hormones are not the only things which can produce personality changes and drug-induced survival of any sort often seems to produce physical and mental changes similar to the spurious well-being of the patient under the influence of male hormones.

Of the gland-extirpating operations ovariectomy is the only one which does so little harm that it can be readily accepted as a shot in the dark. Sometimes it works miracles in the control of metastases from carcinoma of the breast, especially those in the skin of the chest wall. Even so it is well to remember that this treatment is by no means a new conception and the fact that it has been known so long without being very widely accepted suggests that there are some disadvantages to it which we shall have to relearn.

To conclude this survey it is interesting to speculate whether time will show that in the treatment of malignant disease palliation is a better objective than cure. After all, the physician who said that the ultimate prognosis for us all is hopeless was quite right and if we can learn to control cancer so accurately that its progress is no more rapid and no more cruel than any other manifestation of old age, cancer will have lost its terrors and cure will have lost its interest. The realization of this dream is too far away to detract from our present interest in prevention and cure or to allow us to lose interest in the cruder forms of palliation which make up the substance of this Address, but it remains a possibility and a good reason for retaining palliation as a legitimate aim.