Section of Urology.

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Some Points in Connection with the Successful Issue of Simple Prostatectomy.

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ABSTRACT.—The patient before operation is trained by an experienced nurse in the art of thoracic respiration.—Deep anæsthesia during the actual enucleation of the growth of the prostate.—The scrotum and penis must be kept well up on the abdomen after the operation, and a suspensory bandage must be provided for the patient on discharge.—1 c.c. of pituitrin is injected immediately after the operation.—The first post-operative dressing is not done for twenty-four hours after the operation. No catheter is used after the operation, except very occasionally. The slightest sign of post-operative disease of the air-passages should be treated adequately, and immediately.

THOSE of us who have any large experience of prostatectomy know that much of the success of the operation depends upon careful general examination of the patient, in particular of the functionating powers of the kidneys. The operation itself may be easy, but when it has been carried out various precautions are needed for a successful issue.

It is the object of this address to show up details of examination and treatment that have been found useful in twenty-one years' experience of this operation in the genito-urinary department at Guy's Hospital.

No doubt each individual surgeon has a uniform method of treatment, gathered from his own experience, but the operation is so frequently performed by individuals without much experience as to the necessary after-treatment and the precautions which should be taken, especially in the way of intelligent anticipation, that one may be pardoned for drawing attention to points which are probably perfectly well known to many readers.

The examination of the patient should never stop with the chemical investigation of the renal function. Let us take, for example, the condition of the chest. I do not wish to convey that pneumonia after prostatectomy may not be really renal in its origin and progress, but a deficient thoracic respiration may lead towards the development of such a condition.

The points to which it is desired that attention should be directed may be classed quite simply: (1) The condition and treatment of the patient in the period before the operation. (2) Some details of the operation itself, and finally (3) the treatment after the operation.

Before the operation.—There is no difference between the pre-operative treatment for suprapubic—and that for perineal—prostatectomy.

As a rule it is a good thing to get the patient accustomed to his surroundings. The renal function has to be studied, and this takes some time. Meanwhile, examination of the various organs should be made, and in particular of the powers of thoracic respiration. Old men almost invariably have got into the way of using only their diaphragm—a fatty great omentum is evidence of this. A man with a large abdomen is a poor thoracic breather. The omentum may be considered to become fatty in advancing life to give the diaphragm something to contract against, for the abdominal muscles do not at this period of life give much assistance.

We are accustomed to hear of the barrel-shaped chest of the emphysematous individual, but almost of greater importance is the bowing of the upper part of the thoracic region of the spinal column.

It is my invariable rule that the sister-in-charge of the massage department should instruct patients who are to undergo prostatectomy in thoracic breathing. She uses much the same massage and instruction as is used in cardiac cases. I was much impressed the other day by the efficacy of her treatment before the operation in the case of an old man. After the operation one was able to show the dressers how well he was using most of the thoracic muscles as well as the diaphragm. Such a patient could hardly have contracted pneumonia after the operation.

It has always been a cause of discussion as to whether or not the catheter should be used before the operation. As a matter of fact it is frequently used in the out-patient department, previous to admission, as I cannot think that a catheter passed under modern conditions does any harm, and it may do much good in relieving the kidneys of much strain. It is a constant source of delight that so few cases of infection of the bladder by means of a catheter have occurred at Guy's Hospital. I doubt whether more than one case has occurred since the genito-urinary department was established there in 1910.

I would insist, however, that strict asepsis is required, but, in my opinion, of far greater importance is the absence of damage to the urethra especially in the prostate region, as without damage sepsis is unlikely to occur. If damage be done to the urethra in this region I believe that the question of a future operation of prostatectomy becomes extremely grave.

The judicious use of a catheter has, however, other advantages than relieving chronic retention—local conditions of the penis and urethra are not missed.

I recall two important cases in this connection:

(I) In the first the patient was a man aged about 65. The medical man who called me in could not pass any instrument at all. The condition of the end of the penis was congenitally abnormal. There was slight hypospadias, and as is commonly the case the apparent opening was not the real one. There was a deep pit in the usual place of the meatus, but the real opening was some distance behind this and was quite small. I passed an instrument quite easily. He was operated upon by someone else, and I was told that the operation was not quite a success as a prostatectomy, perhaps owing to the nervous condition of the patient, but I wonder whether the exact condition of affairs was ever appreciated by the other surgeon.

I have been called in after a prostatectomy because of a fistula, and I have been struck by the filthy condition of some of the foreskins and adjacent parts that I have seen. If circumcision is not performed, it is the duty of the operator to see that these parts are as clean and normal as possible.

(II) In the second case the patient was a man aged about 70, who in his youth had been very alcoholic. He had had a stricture of the urethra, but undoubtedly the main trouble was caused by an enlarged prostate. After prostatectomy, he went on well for ten

days, then started to spit blood, and had signs of an embolus in the right lung. He recovered from this and then developed right femoral thrombosis. Later he got left femoral thrombosis. I was anxious about him, and as I was going home one night I suddenly thought of certain figures that I had worked out in connection with the association of syphilis and gonorrhœa. I had found that twenty per cent. of venereal cases at Guy's Hospital had both syphilis and gonorrhœa, and I asked myself whether mercury might not be the drug indicated rather than those which had been ordered. I went back at once and ordered mercury. It acted marvellously, the patient being better the next day; he rapidly recovered, and I knew him to be well seven years after the prostatectomy.

If then, with a catheter, a stricture is discovered, it might be useful to give mercury to prevent complications due to syphilis which might be lit up as a result of the operation. I certainly should do so.

The local conditions, congenital or acquired, must be studied thoroughly before the operation. Intelligent anticipation of possible conditions are so much better than attempted cures in an elderly or old man.

My consulting room is now on the first floor; to me this is an immense advantage. If the patient has anything wrong with his chest the one flight of stairs affects his breathing, and he is not likely to be a good subject for prostatectomy.

With regard to the anæsthetic, I am a little suspicious of atropin for old men as I fear it may tend to produce an ileus. Before operation I insist on the absolute cleanliness of both foreskin and glans.

At the operation.—I tell the anæsthetist that I like the patient to be deeply under while the adenoma of the prostate is being removed. A mild antiseptic fluid is injected into the bladder till it can be palpated above the pubes ; no fixed quantity of fluid can be used, the palpation of the bladder is the important point. The catheter is removed and a loose india-rubber tourniquet is placed round the base of the penis, above the scrotum, and secured lightly. This tourniquet is removed directly the bladder has been opened.

The bladder is then cut down upon. When it is exposed some gauze roll is placed carefully and deliberately round the exposed bladder, and as deeply as possible without too much of the surrounding area being exposed.

The bladder is then opened transversely, first because the longitudinal veins on the bladder wall are cut completely across and not nicked as they may be with a vertical incision, hence there is much less bleeding than if the incision be vertical. A Lane's clip forceps is placed upon the upper edge of the bladder wound until it is enlarged in both directions.

The second reason for the transverse cut is the position of the peritoneum, which can be stripped much more easily from the sides of the bladder than in the mid-line where the urachus is situated. Thus the danger of wounding it is much more easily avoided. The question of going on with the operation if the peritoneum be wounded must depend on circumstances, but I should recommend strongly immediate suture of the peritoneum. I have only once wounded it in prostatectomy, and then the intestines came down after the bladder had been opened, so if there was a chance of infection it had already taken place.

Before operating on the prostate itself the interior of the bladder should be carefully explored.

I have found stones, and this possibility is well known ; but not so well known is that of the presence of a papilloma of the bladder, of which I have had at least three cases in association with an enlarged prostate. A sacculus may also be missed unless the bladder be explored. The recognition of a sacculus should be regarded as important, especially if it be directed down towards the groin, for then it may be associated with an inguinal hernia and cause trouble. Moreover, it will cause more trouble if the bladder should become septic after the operation.

Then the adenoma or adenomata of the prostate are removed. The prostate may

be pushed more prominently into the bladder by an assistant pressing firmly with his hand in the perineum. Usually there is little bleeding, but if there is, it must be stopped by the surgeon on the operating table, for if he cannot stop it, the house-surgeon is no more likely to stop it when the patient has gone back to bed; for this, we have always open to us the method practised by Sir John Thomson-Walker. But I am not sure that every surgeon is able to follow his plan, nor may the condition of the patient allow of it. Short of this, much good can be gained by plugging the cavity from which the abnormal prostate has been removed, and if necessary, the bladder cavity itself.

As much as five and a half yards of ordinary cyanide gauze may be packed into the bladder. The rectum may also be packed.

But I believe that the cause of my having at Guy's Hospital at present very few cases of serious hæmorrhage lies in the massage of the prostatic cavity by myself and by all the dressers who are in the theatre helping me. They learn exactly where the prostatic cavity is, and this is very important from the point of view of drainage and other after-treatment. The way in which a massaged cavity contracts down is quite dramatic, and such cavity may grip the examining finger quite tightly. I also

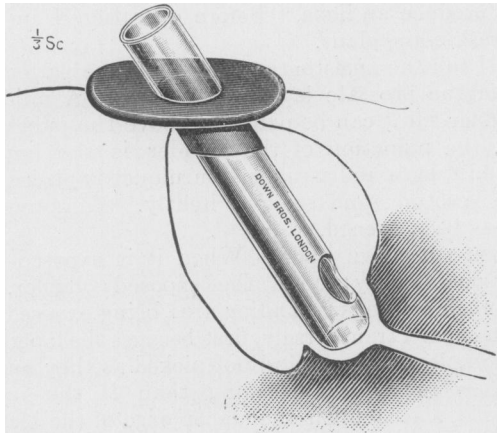

Diagram of flanged drainage tube in region of prostatic cavity after removal of an adenoma.

use very hot liquor hamamelidis, B.P. strength, of a temperature of at least 110° F. The gauze roll is removed from round the bladder, and if there be no bleeding the bladder is allowed to fall back into its true position. I think that an anatomically correct bladder is likely to have a much more natural physiological function than one that is kept in an abnormal position.

Drainage is important; if the bladder is not the seat of inflammation I do not want to drain it, but I do want to drain the cavity from which the prostatic growth has been removed. If the bladder is septic, then the drain used for the prostate region will drain the bladder, but it is a prostatic drain not a vesical one. The drain should be directed downwards and forwards, and led into the cavity from which the growth has been removed. For this purpose Messrs. Down Bros. kindly made for me a glass tube with an oblique flange. That, in my opinion, is the way to use the tube for drainage.

We now come to the question of the material to use for the tube. I have had india-rubber long under suspicion, and have given it up, except for this flange, and

that is kept off the wound by dressings. Professor Gibson tells me that india-rubber usually contains free sulphur; sulphur has its uses in urinary surgery, but it is not wanted now. I tried asbestos tubes, but they tended to become flabby and messy, so I have given them up. I now always use glass tubes.

Everything being as normal or possible, I put in superficial sutures through skin and rectus sheath, taking particular care not to go through the rectus muscle, and by these sutures the edges of the wound are approximated. I think there is real danger of wounding the peritoneum—which is now in its normal position—if the sutures perforate the whole thickness of the rectus muscles. I do not put any suture through the skin in the lower part of the wound. A former house-surgeon of mine, Mr. D. J. P. O'Meara, taught me that such a suture led frequently to local œdema. I believe that this observation is correct.

The dressing is then applied, but one very important step must be taken—the scrotum and penis are brought as high as possible on to the abdomen and kept there till the patient is allowed to get up. It is a great delight to me to see my patients in Guy's Hospital with rugose normal scrota, and a penis that is not swollen.

The patient being now ready to be taken back to bed, 1 c.c. of pituitrin is injected. This is one of the most important points I have mentioned so far. The house-surgeons use it now as a routine, and are convinced of its efficacy in preventing bleeding and shock. As a preventive of either this dose is quite sufficient. As a cure for certain after-operation conditions the dose must be larger.

One of the proudest moments of my life was when a valued colleague in the same line of practice told me he was anxious about a patient who was threatening an ileus, and asked my opinion. I suggested that 2 c.c. of pituitrin should be injected, and I was even more proud when he informed me that it had acted like a charm.

After the operation.—After the operation the patient is not dressed for twenty-four hours. If the dressings get saturated with sanguineous urine they are packed, but not removed. Morphia may be given to ensure rest, if not sleep, the first night. I need hardly say that at the operation dressing, the parts should be very carefully cleaned; ether is most useful and may be used sparingly, with precautions as to a free flame. But dried blood must be removed. Then at the first dressing after the operation any accumulated blood can be easily removed. The scrotum and penis must be kept raised. After the first post-operative dressing the exhibition of one ounce of neat brandy is indicated as a routine practice ten minutes after the dressing has been completed, when the patient is comfortable.

These precautions are taken, for the patient should be kept as quiet as possible immediately after the operation since there is a good deal of shock when the first post-operative dressing is being done.

We now come to a more debatable point, namely, the use of a catheter. Dressers frequently ask me when I take the catheter out after a prostatectomy; I reply that I do not as a rule place one in the bladder.

John Hunter long ago pointed out that with urinary fistulæ a catheter was a foreign body and subject to all the rules of foreign bodies. I feel most strongly that this is the case when a suprapubic operation has been done. A catheter tied into the bladder requires most careful attention, and even then may be a source of sepsis. Moreover, it limits the movements of the patient, and this makes for lung complications. Therefore for local and for general reasons the catheter is not used unless its use becomes necessary at a later period for the closure of the wound. I recollect a case of a man upon whom I had operated for doubtful malignancy of the prostate gland and had removed the organ.

This took place at Easter; at Whitsuntide of the same year I was asked to see him as the wound had not quite healed up, though it was reported that there were

good "granulations." He leaked at night, but was dry during the day. I found him sitting up in bed. When I examined him I found that the "granulations" were not so in fact. The mucous membrane of the bladder was being pushed into the wound so as to form a valve, and during the day, when the patient was sitting up, it most efficiently kept the water from flowing through the fistula, but when he lay down at night the weight of the viscera was taken off the bladder and allowed the mucosa to sink back, and thus permitting the flow of urine. Let me emphasize this point. I have so often seen it deceive even the most assiduous dresser. It is partly for this reason that I allow the bladder to sink back into its normal position after the prostate growth has been removed. If after about a fortnight without a catheter, there is little sign that the wound is making final efforts to close, I get the patient up for two days and warn him that he may have to go to bed again, but that he must not be discouraged by this. After the two days he is put back to bed with only one pillow.

This position prevents the viscera from weighing down the bladder through the wound, but there is another most important point. I learnt it from my first house-surgeon, Mr. Le Vieux, now of Mauritius. He had observed that a well-marked abdominal line of flexion ran across the suprapubic wound, and opened it up about its middle. The observation is quite correct. So to get rid of this line of flexion the patient is laid on his back and a catheter inserted, and the wound usually closes in about three days. I now quote three cases of suprapubic prostatectomy, in which no catheter was used by me and not at all in two of the cases. The first two were in Guy's Hospital at the same time; both were men aged 68. In the one case the bladder wound was soundly healed in fourteen days, and in the other it was healed up in thirteen days, both without the use of the catheter.

The third case was a man just under 60; he was anxious about himself and his work, and was not quite an ideal patient from this point of view. Nevertheless he made an extremely good patient, and had no catheter inserted by me, and went out in about five weeks with the wound soundly and permanently healed. For some reason, not clear to me, he went to another surgeon, who passed a catheter, and the patient at once got an orchitis, from which he has completely recovered. I believe that a catheter, unless very carefully attended to, does tend to produce an orchitis.

The drainage tube is taken out in my practice directly there is no sign of blood or pus in the washings. It is then left out altogether.

I find boracic crystals most useful; since I have used them, on the advice of Mr. Swift Joly I have not been anxious about the local state of suprapubic wounds. The powder must not be used; the wound should be filled with the crystals. The use of these crystals has quite altered my former views of the nasty sloughs that one used to see. These sloughing processes cause great anxiety, however. I am sure about many things in connection with them. First, and especially when they are grey or dark in colour, undoubtedly they show a very weak condition of the patient, and may be a sign of approaching death. But in any case two important points must be attended to, namely, most assiduous care must be taken to keep the parts acid; very dilute glacial acetic acid may be used for this purpose, but boracic crystals are better. Secondly, they are staphylococcal in origin. I believe that when a boil is to be treated by the surgeon it should be simply laid open, but no pressure used to get rid of the slough, for the poison is only pushed into adjacent parts and may do much harm. Similarly with sloughing wounds after suprapubic prostatectomy, the slough should always be allowed to come away of itself and never be detached from the wound, unless quite loose.

These sloughs may affect the bladder itself; they may be dangerous to life and they always prolong healing. I hope I have seen the last of them. The fact that I have seen so very few, if any, in recent years leads me to suppose that some of the forms of treatment that I have indicated may be useful to other surgeons.

Lastly, as orchitis may be a late complication sometimes occurring even after the patient has gone home, I always now provide a suspensory bandage fitting tightly but not rubbing the scrotum, directly the patient is allowed to walk about.

I will now consider certain aspects of prostatectomy.

First, the question of a complicating stone or collection of stones; I have been brought to think that when there is an enlarged prostate without retention of urine, but with considerable pain, a stone is also present, but such stones may have a renal origin. Therefore the whole urinary tract should be X-rayed to discover renal or ureteric stones. From an examination of several stones, I have concluded that though there might be no clinical evidence of a renal stone, yet the structure of the stone in the bladder indicated that it must have had a renal origin.

My house-surgeon and I proved this point when an elderly man with a large prostate and stones in the bladder was operated upon as a last resort, as he was suffering so much pain. I had the bladder opened by the house-surgeon, and he removed the stones but did not remove the prostate. The man gradually sank, and died. At the autopsy we found oval stones at the lower end of the left ureter; these were undoubtedly being passed into the bladder and formed there the nuclei of larger stones. In some cases single stones have several renal nuclei. The lesson to be learnt from this is that we must not be too hopeful about the success of an operation for the removal of the enlargement of the prostate, if it be accompanied by stone.

Another point of importance in the prognosis is that there may be other conditions present, though the enlargement of the prostate may be responsible for the main symptoms. I remember a case under the care of one of my colleagues; he had a carcinoma of the colon, chronic Bright's disease and an enlarged prostate. This man might have gone to a general surgeon, to a urinary surgeon, or to a physician. Whatever course he had pursued the prognosis was not good. Carcinoma of the rectum should always be excluded before operation for an enlarged prostate. I have seen two cases in whom both these conditions were present.

Diabetes.—Under present conditions I do not think that the presence of glycosuria contra-indicates removal of the enlarged prostate. I have had two successful cases in which the patient was placed on a suitable diet; both patients are very well at present, though of course insulin treatment would be indicated strongly.

I now come to a point of real importance: In the hospital it is usually easy to get wives of patients to keep away from their husbands for two or three days after the operation. I am sure that the presence of the wife does harm to the patient; if this is explained to both before the operation there is usually no difficulty.

Chest complications.—Although no doubt many of the post-operative cases of pneumonia are really of renal origin, I think that intelligent anticipation is the important point. I recollect well Sir Charters Symonds telling me that in certain head injuries, if you waited for symptoms you usually waited till the patient was dead. I also recollect that a question used to be asked at medical examinations as to the signs of post-operative pneumonia. My own feeling is that if you wait for signs you will find them only in the death of the patient. You must anticipate them. Here I would protest against the administration of the latest advertised chemicals, especially alkaloids.

I knew one case in which the house surgeon gave many alkaloids in succession, as the symptoms arose, which, in his opinion, demanded them. When I saw the patient I was hopelessly at sea. Know where you are after prostatectomy, and to know where you are you must have some definite idea when certain drugs may be indicated.

There is cause for anxiety if a patient has a slight huskiness of voice. If this occurs I regard the case as potential pneumonia and give preventive drugs, such as strychnine, ammonium carbonate and potassium iodide.

The old-fashioned steam kettle—used as a preventive, not as a cure—does undoubted good if only the patient does not get anxious because it is being used.

Now we may consider the position of the patient after operation. As I have urged frequently, I do not use a catheter, hence the patient is free to lie in any comfortable position. Such a position is best for him as then his organs act easily and smoothly. I see no reason why a patient without a catheter should not lie on his side. There are some few exceptions to this suggestion. When one is a little anxious about bleeding, the patient may lie in bed with his lower limbs and chest sloping downwards from the buttocks raised on a hard pillow; this position has much anatomical merit.

When the patient is lying in bed after the operation, the cavity from which the enlargement of the prostate has been removed is almost the lowest part of the body. We should not allow a bleeding limb to hang down—why should we allow a bleeding prostatic cavity to do so? We should raise the limb, and we must raise the prostatic cavity, especially as there is some shock, with all its paralysis of the vaso-motor nerves, to make the bleeding all the worse.

When it is desired that the wound should finally heal up, the patient may lie on his back as flat as possible.

It is most important that sleep should be procured after these operations. I have seen no particular good from any other drug than morphia, and I use it if it is needed.

With regard to the operation that I call primary union prostatectomy, I have performed this in a good number of cases since I gave an address here years ago on its advantages, and I have not altered my opinion upon it. The question of operating for the removal of an enlargement of the prostate during an attack of acute retention is important. It may be difficult to get all the chemical tests connected with the renal functions made, but if one is satisfied with the clinical condition of the patient it may be that such a procedure is justifiable. No time is lost with distension of the bladder, and the patient is probably not averse to the operation being done.

Early operation is good; we know enough of the natural history of the enlarged prostate to be able to forecast the progress of a case. One must recollect that one of the early symptoms of prostatic enlargement is irritation in the region of the base of the bladder. When a man has such a symptom, but no retention, though we know that such a condition will arise, I think we are justified in advising the full operation. I have had most successful results from early interference and removal of the enlargement of the prostate. There is perhaps too much importance attached to the obstructive symptoms rather than to the actual fact that there is new growth there, even though of a simple pathological nature.

I have never regretted doing an early operation, and have removed quite small adenomata from the prostate with very beneficial results.

Pre-operative alkaline treatment.—In many cases the administration of sodium bicarbonate before operation is indicated, but I have no time to deal with this important question here.

Discussion.—Mr. MORTON WHITBY: From my experience while Resident Medical Officer at St. Paul's Hospital, where a fair number of such cases were under my care, I observed that morphia, one-sixth of a grain before operation and one-quarter of a grain after operation, produced an inhibitory action to the cardio-vascular system and secretory function of the kidneys, where the tests were not good, and in several cases where they were supposedly normal. The clinical phenomena were exhibited by mild attacks of embolism, uræmia and ileus which I attributed to the immediate use of morphia before and after the operation.

Prostatectomy causes considerable shock to the patient, therefore one does not desire to add to this shock by inhibiting the vital systems of the body when they are at their lowest ebb. Pituitrin and frequent hot silver nitrate irrigations will control hæmorrhage, and mist. aspirin co. will alleviate sleeplessness quite as well as morphia. Therefore, I consider morphia absolutely contra-indicated in all cases of prostatectomy.

Mr. H. P. WINSBURY-WHITE: With regard to passing a catheter or cystoscoping in cases of prostatic enlargement for diagnostic purposes, I omit these procedures unless I am not sure of my diagnosis. To pass a urethral instrument in prostatic cases will lead occasionally to acute retention, which is most undesirable and is avoidable if the instrumentation is omitted. I think, however, that cystoscoping the patient on the operating table is a good practice if cystoscopy is considered necessary. I was interested in the President's remarks about his cases of papilloma of the bladder and simple enlargement of the prostate. I have had three or four such cases, and as a result have made the rule, when hæmaturia is a recurring and outstanding symptom in the patient's history, to carry out cystoscopy if possible.

With regard to controlling hæmorrhage, only slight bleeding occurs following the second operation in two-stage prostatectomy. I cannot recall any such case in which I had to deal with bleeding or in which I had subsequent anxiety over loss of blood. The explanation, I think, is that, as a result of the preliminary cystostomy, there is a diminution in the congestion of the prostate with a consequent reduced tendency to bleed. Two-stage prostatectomy is such a life-saving procedure in certain cases, that I think it worthy of mention, especially as we have heard a good deal about chest complications. These in my experience are of the rarest possible occurrence, following the second-stage operation.

I am sorry that the President objects to the simple procedure of vasotomy. It is a most effective preventive of post-operative epididymitis, a most unpleasant complication which may have a considerable influence on the ultimate course of the convalescence, to say nothing of the fact that even months after discharge from hospital epididymitis sometimes occurs.

I am interested to hear that the President sometimes carries out prostatectomy in cases with acute retention. I would be afraid to do this, as my experience is that these patients do better with preliminary indwelling catheter drainage.

Mr. E. W. RICHES said that he was at present engaged in following up prostatectomy cases of different surgeons, extending over a number of years, and the outstanding impression he had gained was that the simplest operative and post-operative procedures gave the best results. He had seen several cases of late epididymitis, and one case after division of the vas without ligature; on the ligatured side there was no epididymitis. He was in favour of routine cystoscopy when it could be easily performed; in cases in which elongation and angulation of the prostatic urethra made it difficult, the attempt should not be persisted in. He regarded the clinical condition of the patient as of greater importance than the result of laboratory tests in deciding for or against one-stage prostatectomy, and he considered acute retention a contra-indication.

Mr. F. MCG. LOUGHNANE: Sufficient emphasis has not been laid upon the importance of routine cystoscopy and urethroscopy as a preliminary to suprapubic prostatectomy. Urethroscopy will reveal a stricture, and it is essential to treat this before the suprapubic wound will heal. Cystoscopy will show the presence or absence of calculi and papillomata, and will give some idea of the state of back pressure on the kidneys, and also the degree of sepsis or cystitis present. Making a large wound in the bladder for investigation purposes is, therefore, not necessary, and the simple Freyer operation can be performed with advantage to the patient. The "open" operation for enlarged prostate in old men is not always the best, for the extra time involved increases the shock, and the kidney function is never good.