over volition; the function is involuntary; moreover, the function is perfectly performed, so it is just as inaccurate to speak of "functional deafness."

Let me give an example of true functional deafness: A child, who had become intensely deaf without any disease of the middle ear, recovered completely after the evacuation of a large number of lumbrici; the function of hearing had been suspended and restored. I have constantly known hearing suspended under a violent emotional influence, and under many other conditions which I need not mention here. This deafness would be accurately described as functional. What happened with this girl and others like her must surely come under the head of mental. A great mental strain must always have been going on lest inadvertently she should be surprised into evincing some perception to sound, and especially when it proceeded from behind or out of sight. I was much struck by a remark of Dr. Ransom, or rather a footnote, in which he draws attention to the fact of the demeanour not being like a malingerer. This applies remarkably to the girl whose case I mention and to others I have seen.

I have seen malingerers who had a very strong motive to induce people to believe them deaf, and their demeanour was quite different to these girls. Probably she had no motive, or, at least, could not say what it was if she wished to do so, but the fact remains that, unlike the person who really suddenly loses hearing, she retained the most perfect modulation of her voice. From the moment that these girls unconsciously display to the bystander that they hear, the deafness goes. What interested me, therefore, so much in Dr. Ransom's case of the deaf-mute was that when he felt the faradic current through the larynx, and gave the "yell," his voice and hearing, like the girl's, returned so soon as his voice was displayed to the bystanders. There was another point of strong resemblance. In the case of the girl (as I mentioned) the voice retained its perfect modulation; for how should she know that this would have become altered if she suddenly lost all hearing? Whilst in the case of the boy who became the deaf-mute, he was unable to emit any sound—surely the oddest kind of deaf-mute; but how should he know that deaf-mutes, whilst unable to articulate, are most noisy, and emit all sorts of inarticulate sounds? Another odd point of resemblance in all these cases is this: They are all right the night before, and always discover themselves to be deaf in the morning, when they awake and are alone. The persons who really suddenly lose all perception to sound do so at all sorts of times, and often in the presence of other people.

Dr. Ransom says, "although the deafness was not absolute when the patient came to the hospital, yet severe tests, such as the cannon, showed it to be real," and, previously, "he gave no sign of hearing a cannon let off close to him on November 5th." In reference to this, I must say that in the cases of which I have made mention the subjects who heard well would also have given no sign of hearing a cannon if they knew it was going to be fired and could see it. But if they saw no cannon (or gun, as the case might be), and the explosion was quite unexpected and near to them, they would have displayed unmistakably to the bystanders that they heard it.

The position, therefore, resolves itself into one of two, and I am prepared to accept Dr. Ransom's opinion in either case. First, he heard the cannon and showed no sign of hearing it. Then his case comes at once into the same category as my cases. Or, secondly, he did not hear the cannon. The function of hearing had been lost, and was restored instantly by the electric shock through his larynx. In the latter case it is a unique instance, and the like of which I have hitherto regarded as impossible to bring about.

Cases of this kind are sufficiently rare to make it most important that each one should be recorded, as every fresh one not only throws new light on the subject, but in those instances where the hearing is really lost either for a time or permanently they help to show what I have for long maintained, that the sense of hearing is often apt to be lost from emotional causes, although I am quite unable to offer any reasonable explanation, and have strictly limited myself to suggestions for the consideration of others. They also help to show that there can be no true hysterical loss of hearing any more than there can be a hysterical loss of smell or of any other special sense.

REMARKS

ON A

SERIES OF THIRTY CASES OF MOVABLE KIDNEY TREATED BY OPERATION, WITH THEIR RESULTS.¹

By W. BRUCE CLARKE, M.B., F.R.C.S.,
Assistant Surgeon to St. Bartholomew's Hospital, etc.

THE completion of a series of thirty cases of nephrorrhaphy seems to me to be worthy of record. The value of the operation has sometimes been called in question. I am anxious, therefore, to record with their after-history, so far as I have been able to learn it, the ultimate results of these thirty operations.

Very nearly two years ago, in a paper which I had the honour of reading before the Fellows of the Royal Medical and Chirurgical Society, I drew attention to a class of cases of movable kidney which had hitherto attracted but scanty notice in this country, and in which very severe pain was one of the prominent features. From the pain and other acute symptoms which determine these attacks, it seemed all but certain that a sudden displacement of the kidney from its natural bed must be their determining cause, and that the term "acute renal dislocation" would best describe what took place, and what indeed was essential to the production of the symptoms in question.

Such cases form only one variety of floating kidney, though a further and more extended experience of what may be described as the more common variety of this condition has forced on me the conclusion that it is rare to come across any case of the kind in which pain has been completely absent throughout; and of the reality of these attacks of pain, when once they are witnessed, there can be no possible doubt. The question to be determined is what is the probability of a successful result if an operation be performed. The immediate result in all my cases was a successful one, and, so far as I have been able to learn, every one of my patients is alive at the present moment.

In by far the great majority of these cases pain has been the prominent feature, and the severity of the pain has led to the demand for its relief. The special character of the pain was described at some length in my previous paper before alluded to. Suffice it here to say that the pain usually begins without any warning, sometimes in consequence of a strain or some severe exertion occasionally after injury. It is often attended by vomiting, and later on usually gives rise to local abdominal tenderness. The duration varies from a few hours to a day or two, and in some instances it may be cut short by manipulating the affected kidney, in other words, by reducing the dislocation. The condition of the urine during and shortly after the attacks varies greatly. It may be scanty and blood-stained, or almost porter-coloured, like that which is passed in acute Bright's disease, whilst in the less severe cases it is more commonly quite unaltered.

In some of the cases here related the pain was far less acute. It was described by the patients themselves as consisting of a dull ache, which rarely left them free from a sensation of uneasiness in the loin, and was usually aggravated by hard work or exercise of any kind. This class of case in women is almost invariably attended by more severe pain at the monthly periods, but I have never come across any instance in which the urine was blood-stained or much altered in condition in cases of moderate severity. In many of my cases, during the interval between the attacks, the kidney, even when the patient complained of no pain, was unduly tender to palpation.

Several of the cases referred to in the table on page 577 present points of special interest; I will therefore refer to certain of them *seriatim*, and afterwards state briefly the conclusions which seem to be deducible from them.

Cases I and II both occurred at the West London Hospital,

¹ Read before the Medical Society of London, March 11th, 1895.

where they came under my care in 1888. They are remarkable as being the only two instances I have come across in which the kidney was surrounded by a well-marked mesonephron, and in which, therefore, it was found necessary to open the peritoneum in order to fix them firmly in position. The kidney in both these cases could be felt to be distinctly movable, and slipped readily out of its proper position. In both the sutures were passed through the peritoneal coats only, and the patients made rapid recoveries.

Case I complained of but little trouble afterwards, and when seen by me some fifteen months later stated she was in excellent health, and had not had any pain in the loins.

In Case II the pain ceased for a few weeks, and then returned with even greater severity than before, so much so that she begged for something more to be done to relieve her. A second operation was performed six months after the first, and the kidney was found to be fairly well fixed in position. It was cut into and punctured with a needle, but no adequate cause for the pain could be discovered. As the patient's sufferings had been so very severe in the interval between the two operations, I decided to remove the offending organ. When the operation was completed the kidney was cut across and a small calculus covered with minute spicules was discovered in its interior. The patient made a speedy recovery and was cured of her trouble.²

Case III has already been published.

The next case which offers any special points for consideration is Case VI, a woman who was placed under my care in 1891 by Dr. Gray, of Oxford, with the following history. Her left kidney had been movable for three years and a-half, and had given rise to a considerable amount of pain, quite incapacitating her from taking active exercise, and during the last three months she had experienced some pain on the left side. She was very thin, and the right kidney could be felt at times to be larger than natural. It was decided to operate on the right kidney first, and leave the question of the left for future consideration should her pains still persist. The kidney was fixed to the lumbar fascia by two large silk sutures, after it had been thoroughly explored for the purpose of ascertaining whether it contained a stone. She made an excellent recovery, and felt she had derived so much benefit from the operation that the pain on the left side seemed hardly to trouble her. Under these circumstances I did not propose to operate on the other side, and gave a favourable prognosis. Some few months later I heard she was much improved in health, and, with the exception of a very slight dragging pain in the loins, had no trouble from her kidney. The subsequent history of the case fully bore out the prognosis, and four years later she became a hospital nurse, capable of any amount of hard work.

Case VIII, another female patient, is an excellent illustration of how liable a movable kidney is in its acuter forms to be mistaken for a case of renal calculus. In 1889 she was admitted into St. Bartholomew's Hospital in consequence of attacks of renal colic, which were supposed to be due to calculus, and she remained some time in hospital without passing any calculus. After she went out she had further attacks of pain and came under the care of Dr. Bousfield in the Old Kent Road, who asked me to explore the kidney, and I did so in July, 1890, and found it somewhat movable, and sutured it in position. For a time she improved, but as a good deal of pain remained she came under my care for the second time about a year later, and the kidney was again explored. It was found to be firmly fixed to the side, but the ureter was loose and could be easily pulled up into the wound; in other words it appeared to be a good deal longer than necessary. The interior of the kidney was fully explored and a small bougie was passed down the ureter into the bladder, but no stone was discoverable anywhere. A drainage tube was accordingly inserted and the wound closed. She made an excellent recovery, and since her last operation, though not entirely free from pain, has been able to follow her occupation without difficulty.

² The earlier history of Cases I and II was referred to in a paper read by me before the West London Medico-Chirurgical Society in 1890, entitled *Nine Years of My Surgical Experience at the West London Hospital*; and also in a paper on Renal Surgery, at the Leeds meeting of the British Medical Association. See BRITISH MEDICAL JOURNAL, November 16th, 1889.

³ *Med.-Chir. Trans.*, vol. lxxvi, p. 263.

Cases IX, XXI, XXII, and XXIV have many points in common. They all either were passing or had at some time passed pieces of calculous material.

Case XXIV, which first came under my care at St. Bartholomew's Hospital in August, 1893, though by far the most severe of the four, is a typical example of the class, and I will therefore refer to it more in detail. The patient in question was aged 24, unmarried, and had had some pain in the lumbar region for several years, at times very acute. The acute attacks of pain were limited to the left side of the abdomen, and were usually accompanied by a certain amount of abdominal tenderness and distension. Just before she came under my care she had passed some phosphatic debris, and had had several slight attacks of hæmaturia. Her kidney on the left side was explored; it was found to be somewhat larger than natural, and flabby in texture. On incising it some urine and phosphatic gravel escaped, and its interior, including the pelvis, was considerably dilated, and contained a good deal of pus. It was easy to explore the interior thus dilated with the finger. There was no distinct calculus present, but the walls were here and there coated with phosphatic material. A small bougie was passed down the ureter into the bladder, and no obstruction of any kind was encountered. As there was still a fair amount of secreting substance left in the kidney walls, and the exact condition of the kidney on the opposite side was a matter of uncertainty, I decided to suture the left kidney firmly in position, with a hope of saving it permanently.

For the first few days the patient's condition gave rise to some anxiety, as she did not rally well from the shock, but she eventually made a good recovery, and though she passed some urine through the loin during the two subsequent months, she derived much benefit from the operation. After she left the hospital, as she was unable to rest, she relapsed into her previous weak condition, and soon suffered from severe pain on the right side, necessitating the fixation of this kidney, which was very movable, to the corresponding lumbar fascia, and three months later the removal of the left kidney, which was then reduced to a mere shell containing pus. At present she suffers from a certain amount of pain in her remaining kidney, but is better than she has been.

Of the remaining three cases in which calculous material was present nephrorrhaphy was performed in all three. Two of them recovered completely, whilst the third (Case IX), which was under my care at the West London Hospital, had nephrorrhaphy performed in 1889, following by nephrectomy in 1890, and is now well and able to lead an active life.

It may possibly seem hardly fair to have included these cases under the head of movable kidney at all, since they ought rather to be described as instances of nephrolithotomy. I would draw attention, however, to the fact that the debris in their interior gave no evidence of the formation of any distinct calculus, but adhered to their walls over a larger or smaller area. There was no evidence that any distinct calculus had been passed by any of them, nor was the calculous material present in the early stages of their affections. It appeared only as a later symptom, and was, I believe, as much a secondary condition as the abscess in the interior of a kidney that had been movable for years, the history of which I am just about to relate.

Case XII is the only one in which I have come across an acute abscess supervening upon a long-standing movable kidney. She was an old woman, aged 65, and was admitted to the West London Hospital in 1890 with an acutely painful swelling in the region of the left kidney, and a high temperature.

She gave a history of long-standing aching in that region, and stated she had been told she had something wrong with her kidney some years before. An incision was made in the left lumbar region, and the kidney found to be displaced forwards and somewhat downwards. It was distended with pus, which was let out, after which the organ was sutured to the lumbar fascia without much difficulty. A bougie was passed down the ureter and demonstrated that it was pervious. A rapid recovery ensued, and the patient left the hospital feeling perfectly well.

Cases XI and XVIII, like Case III, have already been described in my paper on Acute Renal Dislocation, before alluded to.

There are, in addition to these three, eighteen other cases in which the mobility was uncomplicated by any other condition, and in which dilatation of the kidney pelvis either did not exist at all or had only just begun to appear at the time of operation.

It is difficult, if not impossible, to separate the acute cases which I have previously spoken of under the term "acute renal dislocation" from the more chronic form of movable kidney. One variety passes, as I have already stated, into the other by a series of almost imperceptible gradations. Even the most chronic cases, when they are cross-questioned on the point, can usually call to mind some one or more occasions on which they have been seized with acute pain in the lumbar region. It may have been transitory and it may have occurred some time preceding the inquiry in question, but it is rare not to get the information if it is sought for. I have, therefore, included all the uncomplicated cases of movable kidney in one series. Thus it appears that twenty-one of the thirty kidneys here referred to were uncomplicated by dilatation of the kidney pelvis to any marked extent. Of these eighteen were cured, or at least so far benefited by the operation that they were enabled to lead an active life, and felt little or nothing of their old trouble. One of them (No. xxx) has been operated on too recently to enable me to form any certain conclusion as to the ultimate result; so far, however, she is entirely free from pain.

In three of the cases, namely, Nos. xii, xxviii, and xxix, there was improvement, but not complete freedom from pain or from danger of further destructive dilatation of the kidney pelvis. In Case xxix it is quite possible that further improvement may take place. Mr. Burnet, one of my former dressers, who sent this case to me, tells me that in the seven months since the man was operated on he has had six attacks of renal pain. In general appearance, however, he is decidedly better, and his friends describe the attacks as being less severe and interfering less with his work than they used to.

In two of the patients above referred to (Cases x and xi) the affected kidney when explored was found to be so disorganised that it was removed at once: (for Case xi see "acute renal dislocation"), and in two instances, Nos. xiv and xxvi, although an attempt was made to preserve the kidney, it was unsuccessful. The relief from pain was only temporary, and nephrectomy was performed a few months later. In the latter case Dr. Covey, under whose care the patient had recently been at Southampton, wrote to me some time after the first operation saying she was confined to her bed, and that her health was failing in consequence. Since the kidney was removed she has been quite free from pain.

Several points are suggested by a consideration of the above cases. First, the impossibility of distinguishing clinically between kidneys which are surrounded by a mesonephron, and those which are movable behind the peritoneum. In my first two cases, as I have already stated, a mesonephron was present, but the character of the movements of the kidney gave no clue to its existence beforehand. In several of the subsequent cases the movements were so extensive that a mesonephron was expected to be present, but none existed.

It is often asserted that operations performed on movable kidneys do not yield the results which are expected from them. The results that will be obtained largely depend, I am convinced, on the condition of the kidney when the operation is performed. If the pelvis is dilated or the secreting substance largely destroyed, but little is to be gained by leaving the affected organ, if the other one is known to be healthy; and it is obvious that the more unhealthy the movable kidney proves to be, the more certain it is that the opposite organ is capable of taking on the work of both sides. If the ureter is lax and elongated the tendency to form kinks and temporary valves is considerable, and militates against the likelihood of a successful issue, as is well shown by the later history of Case viii. If such cases are to be operated on at all the sooner they come into the surgeon's hands the greater the chance of permanent relief of pain, and of preventing those degenerative changes which in all probability will eventually destroy the kidney, and tend to shorten the life of the patient to whom it belongs.

Table of Thirty Cases of Movable Kidney.

No.	Name and Age.	Prominent Symptoms.	Date of Operation.	Result.
1	E.L., 39, female, married	Dragging pain in loins	Nov., 1888	Well 15 months later.
2	M.E., 18, female, unmarried	Dragging pain in loins	Nov., 1888	Pain returned; kidney removed, contained calculus.
3	J.E., 33, female, unmarried	Severe pain right loin; 18 months' duration; at times nausea and vomiting. <i>Med.-Chir. Trans.</i> , vol. lxxvi, p. 262	Dec., 1890	Well 18 months later.
4	T.S., 27, female, unmarried	Dragging pain; occasional attacks of severer pain with vomiting	Nov., 1889	No attacks of acute pain 7 months later.
5	H.W., 24, female, unmarried	Attacks of severe pain; 2 or 3 years; lately worse	January, 1890	Married shortly after; no pain in 1892.
6	M.H., 27, female, unmarried	Both kidneys movable; right 3 months; pain; left 3 years; operation on left	January, 1891	Well 4 years later.
7	W.S., 22, male	Hæmaturia; attacks of pain; stone expected; none found	April, 1890	No pain after operation; soon to sight of.
8	L.S., 23, female, unmarried	Severe pain; explored twice	July, 1890, and Aug., 1891	At present (1895) health good; occasional slight pain.
9	A.M., 27, female, married	Severe pain; dilated kidney; contained phosphatic material	July, 1889, and June, 1890	Pain returned; nephrectomy a year later; well 1895.
10	J.N., 33, female	Pain 7 years; attacks last 12 hours; vomiting; kidney enlarged; nephrectomy	Oct., 1890	Well a year later
11	J.P., 22, male	Severe pain 1 year; kidney reduced to mere shell; nephrectomy. <i>Med.-Chir. Trans.</i> , vol. lxxiv, p. 255	Nov., 1890	Well 4 years later.
12	S.Q., 65, female, married	Pain for years off and on; not severe; abscess	Dec., 1890	Well 2 months later.
13	C.R., 4, female, unmarried	Slight pain 3 months; hæmaturia	Feb., 1891	Slightly improved.
14	L.G., 21, female, unmarried	Two years' pain; vomiting; dilated kidney; nephrectomy	April, 1891	Married; well July, 1894.
15	L.S., 25, female, unmarried	Pain several years	Aug., 1891	Well at present, excepting occasional pain.
16	C.W., 40, female, married	Pain from time to time	Jan., 1892	Scarcely any pain a year later.
17	R.B., 56, male	A few weeks' history pain; kidney partly atrophied	Aug., 1892	Well 3 months later.
18	J.G., 39, female, married	Severe pain. See <i>Med.-Chir. Trans.</i> , vol. lxxvi, p. 261	July, 1892	Well December, 1892.
19	H.T., 17, male	Pain and hæmaturia	July, 1892	Well when leaving hospital; not seen since.
20	F.C., 31, male	Four months' pain; vomiting	March, 1893	Letter from Dr. Edwards, Bedford, 1894, to say he is well.
21	R.C., 31, female, unmarried	Attacks of pain 12 or 13 years; hæmaturia; melancholia after operation	May, 1893	Improved.
22	F.H., 44, male	Pain; nephrolithiasis; has passed a stone; none found at operation	Aug., 1893	Scarcely any pain 6 months later.
23	A.C., 24, female, unmarried	Pain for 2 years off and on; hæmaturia; enlarged kidney felt before operation, which was not found a year previously	July, 1893	Well six months later
24	M.M., 24, female, unmarried	Left kidney; duration 12 months; passed blood and pus. Right kidney, see Case xxviii	August, 1893, and April, 1894	Benefited for a time; left nephrectomy; no pain since.
25	A.M.N., 32, female, unmarried	Six months' pain; dyspepsia	January, 1894	Some discomfort for a while; 3 months later well.
26	E.P., 34, female, unmarried	Pain 4 or 5 years; severe shoots down leg	March, 1894, and Dec., 1894	Benefited pain returned; nephrectomy; well since.
27	S.B., 42, female, unmarried	Eleven years since some pain; worse during pregnancies; large movable kidney tender to touch	March, 1894	Well October, 1894.

No.	Name and Age.	Prominent Symptoms.	Date of Operation.	Result.
28	M. M., 25, female, unmarried	Five months' pain, sometimes severe; right kidney; left, see Case XXIV	January, 1894	Benefited; some pain at present.
29	J. C., 23, male	Duration 6 years; frequent attacks of pain lasting 2 or 3 days; vomiting; smoky urine	July, 1894	Improved.
30	A. K., 54, female, married	Pain came on suddenly 3 years ago; frequent attacks since	January, 1895	Well at present time.

OBSERVATIONS ON THE EFFECTS OF DOUBLE CASTRATION (WHITE'S OPERATION) UPON THE ENLARGED PROSTATE.

By E. HURRY FENWICK, F.R.C.S.,

Surgeon to the London Hospital; Surgeon to St. Peter's Hospital for Urinary Diseases.

I BELIEVE that the operation of double castration, which Dr. J. W. White, of Philadelphia, has proposed for the shrinkage of the enlarged senile prostate, is a valuable and an important addition to our methods of treating the distressing sequelæ of this form of urinary obstruction, for, although my experience is limited to nine cases, yet I have seen sufficient improvement in these to induce me to recommend the operation for certain forms of the disease. I gather that the profession at large is too sanguine as to the immediate benefit to be expected from the procedure, that too pronounced a relief is anticipated from it, and that it is regarded as a panacea for all stages of prostatic obstruction. These views, I submit, are untenable. It is rather to introduce a discord in the prevailing harmony of the results which have already been published that I offer the following conclusions for consideration and criticism.

I would venture to suggest that those who record their experiences should be careful to recognise and to mention the character and size of the prostate *per rectum* and the length of its channel before and after operation, for it is only upon accumulated reports of such data that we can be guided to the selection of that form of prostatic enlargement which is best suited for double castration. Accurate estimation of the character and size of the prostate is far from easy. I cannot but believe that statements describing enormous prostates disappearing in three weeks after orchectomy spring from an erroneous appreciation of the size and shape of the gland.

I may claim for myself to have avoided false impressions as far as is possible, by having educated my fingers to detect slight differences in the rectal contour and consistency of the prostate under the varying conditions of health and disease. For the last ten years I have been in the habit of modelling in clay¹ or drawing in diagram nearly every prostate I have examined, but my notes on those bearing on this subject must be, for brevity's sake, excluded from this article.

My cases of double castration are briefly as follows:

CASE I.—This was my test case for shrinkage of the normal human prostate after orchectomy. I ablated the entire genitals of a man, aged 45, by the Thiersch-Gould method, for extensive epithelioma of the penis. After six months I found the prostate had been reduced to the size of a small bean.

CASE II.—Aged 76. Some years of feeble prostatic micturition. Sudden and prolonged retention. Extreme difficulty of catheterisation. Prostate unusually hard and enlarged, especially in the left lobe. Suprapubic drainage, because patient was at a distance from medical attendant. Double orchectomy. Result: in one week patient began to evacuate a little urine voluntarily, the suprapubic wound closed, and in three weeks he was able to do without a catheter. The prostate had slightly diminished in size by this time, and, though further diminished in three months, it was still appreciable. His last report was: "I have had no stoppage; the stream varies; sometimes it is feeble, at other times there is high pressure. The intervals between making water also vary; sometimes I may go five or six hours without a call, at other times I have to urinate every two or three hours." Improvement maintained.

CASE III.—Aged 70. Symptoms of enlarged prostate for six years. Attacks

of retention. Slight cysto-prostatitis with some mild pyelitis present, the inflammatory conditions commencing a year before orchectomy. The prostate is noted as small *per rectum*, but the lateral lobes were seen by the cystoscope to be much upraised towards the bladder, the bar at the vesical orifice being very oedematous and translucent. The bladder was fasciculated and pouched.

Result of Double Orchectomy.—The urine cleared in the first week, the stream improved in force, the pain on micturition diminished. At the end of the third week the prostate was slightly smaller, the structures of the lobes seemed more fibrous, and the interlobar line of demarcation had filled up. After three months the stream had markedly improved in force, and no symptoms, except slight variability in the power of the bladder, remained. Improvement maintained.

CASE IV.—Aged 76. Repeated attacks of retention and uræmia. Catheterisation most difficult. Prostate plump and elastic, only moderately enlarged towards the rectum. Suprapubic drainage for months without improvement to the cystitis. Double orchectomy. Cystitis rapidly diminished, and voluntary micturition was recovered in a fortnight, a stream of good force resulting. Prostate was slightly smaller at the end of the third week. Improvement maintained.

CASE V.—Aged 76. History of five years' dysuria, which was not much relieved by catheter. The instrument had to be passed every two hours, then every hour. Irrigation of the bladder had no control over the cystitis. Double orchectomy. Prostate slowly diminished in size; catheterisation was only needed every six hours; cystitis diminished, active occupation renewed.

CASE VI.—Aged 81. Patient had relieved the bladder with catheter for nine years. For several years he has had to catheterise six or seven times during the night and three times during the day. For the last three months he had experienced increasing difficulty in passing his instruments, and his efforts were often followed by hæmorrhage. Prostate *per rectum* was large and elastic, especially the left lobe. He was promised relief only. He was assured that by orchectomy the catheter would be needed less frequently, its introduction would be easier, and the cystitis would be reduced. Orchectomy. Result: For three days after the operation the catheter was only needed twice in twenty-four hours, then four times in the same period. At the end of three weeks the prostate had slightly diminished and the interlobar line of demarcation had filled in; the cystitis had greatly decreased, but the catheter had again to be used three times at night. No stone or other source of irritation was present.

CASE VII.—Aged 60. History of two or three years' dysuria, with occasional use of catheter, followed by cysto-prostatitis. A prostatic abscess formed and burst into the urethra. Intense pain experienced after every feeble attempt at micturition; finally retention. Catheterisation for a week. Prostate large laterally and elastic. Orchectomy. Recovery of voluntary micturition on third day; slight shrinkage of the prostate after two weeks. Pain diminished, but stream and frequency of micturition very variable. Pain gradually left, frequency became normal, but prostate still plump and elastic, perhaps diminished one-eighth by fourth week.

CASE VIII.—This patient, aged 46, applied to me after ten years' of skilled treatment for an aggravated prostatitis with great local pain, tenderness, and severe and intractable neuralgic radiations. There was also increased frequency of micturition. Sitting or walking was almost unbearable. Orchectomy. No marked relief as yet. Prostate slightly smaller. Final condition will be reported later.

CASE IX.—In progress.

All the above patients were in urgent need of relief, and they were selected from a large series of prostatic cases as being suitable for the operation. It will be noticed that they illustrate the use of the operation in four groups of cases.

1. Those cases in which castration was performed early—that is, before the vesical muscle had been permanently crippled, but not before it had been impaired.

2. Those in which the muscle power had been abrogated by years of catheterisation, and in which death was approaching from ascending pyelitis.

3. Those in which the ordinary obstructive symptoms were aggravated by chronic inflammatory troubles of the senile prostate.

4. One mid-adult case of incurable chronic prostatitis and vesiculitis which was complicated by unrelievable neuralgic radiations.

REMARKS UPON THE OPERATION AND ITS RESULTS.

Operative.—In every case of orchectomy in the aged which I have done, swelling, and in some cases suppuration, of the stump of the cord has taken place. The wound in two cases has had to be reopened for drainage. It might be contended¹ this was due to inefficient asepsis. I cannot but think that suppuration is induced by the inflamed bladder, microbes from which attack the wound; but traumatism of senile tissues also assists, and I would suggest that the greatest gentleness should be exhibited in dealing with the cord, that no stretching by pulling on the testicle should be permitted, and that a drainage tube should be invariably left for three or more days in contact with the surface of the stump when cystitis is marked. The inflammatory dangers of *bistournage* under these circumstances is too obvious for comment.

RESULTS.

(a) *Reduction in the Size of the Prostate.*—The prostate, commencing probably at or near the orifice of the bladder, and

¹ Clay Modelling of the Living Prostate as a Means of obtaining a Permanent Record of Progressive Disease. BRITISH MEDICAL JOURNAL, 1887, i, p. 1080.