The heart beat could not be distinctly felt on that account, and the pulse was extremely irregular and intermittent. The patient looked in fairly good health, although he was "asthmatic," and had suffered a great deal from the frequent passage of catheter by day and night during the previous three months. I removed the prostate in October, 1904. Dr. Cyril Lewis gave the anaesthetic, Dr. Jones assisted, and Mr. Cresswell, C.B., was present. The prostate and its capsule were the toughest I have had to deal with and were removed piecemeal—four adenomata and three tough fragments of capsule. My left forefinger got tired out, and I had to use my right forefinger before the operation was completed. Rubber gloves were used on the hands when manipulating in the rectum. On the night of the operation I was afraid he was in for an attack of bronchitis, but an emetic removed all anxiety. From the eighteenth day after operation he passed urine entirely per urethram, and went home on the twenty-sixth day, retaining and passing his urine quite normally. (In March, 1905, he reported himself, and said the result was perfect—"I do not get up at night.")

In conclusion, I would venture to remark about the use of antiseptics in these operations. Weak antiseptic solutions for washing out the bladder are only a source of local irritation, plus the possibility of being absorbed and throwing unnecessary tax upon the eliminating organs. Sterilized salt solution is better for irrigation, because the beneficial effect is really due to the mechanical removal of surgical dirt. Antiseptics to be of any germicidal value must be strong, and for suprapubic operations upon the bladder I find that pure tincture of iodine poured into the bladder (2 to 4 dr.) through the suprapubic opening is an excellent preparation to correct septic conditions either at the time of operation or at subsequent dressings. It is better than any powder, because it runs into all the nooks and crevices, and comes into contact with the entire field of operation.

[Since the above paper was written Messrs. Weiss and Son have made for me a special elevator for lifting up the base of the bladder, and in two suprapubic operations I found it most useful; in one case where my fingers were too short without it I was able to pick out 47 calculi from a post-prostatic pouch before I removed a big prostate. The elevator is passed into the rectum, and is under control of the operator. I hope later on to relate cases in which such an instrument is of great value in raising the pelvic floor through rectum or vagina, in ovariectomy, hysterectomy, and bladder operations.]

A RECENT SERIES OF 60 CASES OF TOTAL ENUCLEATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

By P. J. FREYER, M.A., M.D., M.Ch.,

Surgeon, King Edward VII's Hospital for Officers, and to St. Peter's Hospital.

DURING the past four years lectures and papers of mine have been published from time to time in the *BRITISH MEDICAL JOURNAL* dealing with my operation of total enucleation of the prostate for radical cure of enlargement of that organ. These lectures and papers have dealt with series of this operation, gradually increasing in number, and in this way full details of each instance of my first 110 cases of the operation have been placed before the profession. I have now to record a further series of 60 cases operated on between July 1st, 1904, and March 8th, 1905. This series is such a large one that it is impossible without encroaching unduly on the space of the *JOURNAL* to enter, as I have previously done, into full details of each case. I propose, therefore, recording in detail a limited number of cases of more than ordinary interest or illustrative of some peculiar feature of the operation, adding a tabular statement giving some of the most important particulars of each case.

CASE CXII.

A gentleman, aged 62, consulted me on June 29th, 1904, on the advice of Dr. R. G. Pollock, Tiverton. Prostatic symptoms for three years; retention of urine two years previously and on several occasions within the next year, relieved by catheter: dependent on catheter for one year. Repeated attacks of cystitis, orchitis, and haemorrhage, with clots blocking the catheter; much pain. Prostate greatly enlarged per rectum, bilobed, smooth, tense, elastic, movable, easily felt bimanually, the size and shape of a large pear; urine contained pus, blood, and albumen. Patient very stout, general health fair.

On July 4th, Lieutenant-Colonel D. French-Mullen, I.M.S., and Dr. Laing Gordon of Florence being present, I enucleated the prostate entire in its capsule, leaving the urethra behind. Time from commencing the operation till the prostate was delivered from the bladder six minutes. More bleeding than usual, but no shock; uninterrupted recovery; passed some urine naturally on June 22nd; wound closed on July 26th. Went home in good health on August 5th, able to pass and to retain his urine, which was normal, as well as he ever did. On January 20th, 1905, he wrote me that he was in perfect health, untroubled by any urinary symptoms.

Fig. 1.—Prostate, weighing 6½ oz., removed from patient aged 62 (Case CXII). A, left lobe; B, right lobe, giving off an outgrowth, C, in the bladder. Catheter shows tortuous course of urethra.

The prostate (Fig. 1), which weighs 6½ oz., is a fine specimen of symmetrical adenomatous enlargement. Two-thirds of the prostate projected into the bladder.

CASE CXVI.

Gentleman, aged 62, came from Trinidad to consult me, on the advice of Dr. Eakin, Port of Spain, August 10th, 1903. Prostatic symptoms eleven years. Double castration performed by a London surgeon in 1896 for cure of his disease, but with no benefit whatever. Completely dependent on the catheter six years; chronic cystitis; haemorrhage twice. Prostate size of a walnut, hard but movable; scarcely felt bimanually as patient was very stout. I advised removal of the prostate; but the operation was postponed for a year owing to pressure of business. On his return in July, 1904, patient was in much the same state; catheter used five or six times daily; urine "fishy" in odour, contained much pus and mucus.

With the assistance of Mr. Thomson Walker I enucleated the prostate, weighing 1½ oz., entire in its capsule, July 21st, easily and rapidly. Urine began to pass naturally August 4th, but the suprapubic wound was slow in completely closing. I saw him on September 23rd previous to his departure for Trinidad. He was in excellent health, the wound firmly closed, and he could pass and retain urine as well as he ever did.

CASE CXX.

A distinguished Russian General, aged 75, consulted me August 4th, 1904, suffering from prostatic symptoms for six years; completely dependent on the catheter for three years; operated on about three years ago by the late Professor Bottini of Italy by the electro-cautery, but with no improvement. Since then he has had cystitis continuously, for which bladder washed out twice daily. Had consulted many specialists on the Continent and in England, including Professor Guyon of Paris, with whose kind approval I was approached with a view to removal of the prostate. Great loss of flesh during past few years, with some digestive troubles; prostate enlarged per rectum, bilobed, very dense, movable, felt bimanually; calculus detected by the sound; sufferings so severe that the patient said he would run any risk from operation rather than continue "catheter life." On my advice he consulted Sir Douglas Powell, who considered that his constitution was sufficiently sound to stand operation, which had to be postponed till after my autumn holiday.

On September 15th, Dr. Hewett being the anaesthetist, I removed two phosphatic calculi suprapublically, and then enucleated the prostate. This was accomplished with difficulty, owing to the cicatricial adhesions between the prostate and bladder resulting from Bottini's operation. Scarcely any bleeding; no shock. There was no rise of temperature, and satisfactory progress was made, with the exception of his severe digestive troubles, for which Sir William Broadbent saw him with me. On September 24th urine passed freely per urethram, but the suprapubic wound being slow in closing I tied in a rubber catheter on October 21st for five days, when the suprapubic wound was firmly closed, and the urine passed naturally with perfect ease. On November 5th patient left for the Riviera in good health, able to pass and retain his urine better than he ever did before. On January 16th, 1905, I heard from him that his urine was quite clear, and that his digestive troubles had practically disappeared.

CASE CXXI.

Gentleman, aged 32, seen with Dr. Randell, Beckenham, August 10th, 1904. Catheter employed for prostatic obstruction eight years, latterly four times daily, a little urine being passed naturally every two hours with much straining. Haemorrhage, cystitis, and orchitis from time to time. Catheter introduced with difficulty. Prostate greatly enlarged per rectum, bilobed, soft, smooth, movable; felt bimanually, the size of a large orange. Health feeble. Inguinal hernia requiring a truss.

On September 15th, Mr. C. Braine being the anaesthetist, Dr. Randell assisting, Drs. de Havilland Hall (London) and Renny (Colchester) being present, I enucleated the prostate entire in its capsule easily and rapidly in four minutes. Very little bleeding; no shock. The recovery was uninterrupted, urine passing naturally October 12th, and the wound being dry next day, after which it did not reopen. Seen by Dr. de Havilland Hall September 23rd, in excellent health, able to pass and retain urine as well as he ever did. Left for home on September 24th. On January 26th, 1905, he wrote: "I am quite well, and as active as ever;" and on March 13th, "My health continues excellent."

Fig. 2.—Prostate weighing 4 oz. removed from a patient aged 32. (Case CXXI.) A, left lobe; B, right lobe, prolonged into bladder in polypoid form, C.

The prostate (Fig. 2), which weighs 4 oz., presented an outgrowth in the bladder the size of a large plum, growing from the right lobe.

CASE CXXV.

G. C., aged 70, admitted to St. Peter's Hospital, September 18th, 1904, completely dependent on the catheter from prostatic enlargement. Had been operated on in November, 1903, in another London hospital, the house-surgeon of which kindly supplied the following notes:

"November 26th, 1903. Mr. ——— operated by suprapubic opening; brought bladder to surface and fixed it to abdominal wall by two lateral sutures. Bladder was opened, and a small vesical tumour found blocking the internal meatus. Mucous membrane opened and a tumour the size of a walnut shelled out, adenomatous in substance. Drainage tube inserted and catheter lodged. December 12th. Abdominal wound closed. December 16th. Wound broke down, urine discharging. January 1st, 1904. Patient's condition not being improved, he was again taken to the theatre, wound opened, and the internal meatus found freely patent to catheter passed through it. In view of this Mr. ——— determined not to do anything further. Bladder appeared to be atonic.

Since this time patient had been obliged to use a catheter to draw his urine, usually four times daily, though never employed before the operation. Prostate enlarged per rectum, bilobed, soft and movable; and by the cystoscope both lobes were seen somewhat prominent in the bladder, the space between them being ragged, the result of the previous operation. Pulse irregular, but no bruit detected.

On September 21st I enucleated the prostate, weighing 1½ oz., with some difficulty, owing to the adhesions caused by the previous operation; rather more bleeding than usual.

Uninterrupted recovery, with the exception of slight orchitis; wound closed, and all the urine passed naturally October 6th; discharged cured October 24th. This patient presented himself at the hospital a few days ago in perfect health, able to pass and retain urine, which was normal, as well as he ever did. I introduced a catheter, but found no residual urine.

This is the fourth case that I have published in which McGill's operation of partial prostatectomy had been previously performed with no improvement, followed by absolute cure after complete removal of the prostate by my method. It will be observed that the failure to pass urine naturally after the first operation was attributed to "atony of the bladder," whereas in reality it was due to obstruction by pressure of the lateral lobes on the urethra, there being no atony of the bladder whatever.

CASE CXXIX.

Gentleman, aged 78, seen with Dr. W. C. Luffman, London, September 15th, 1904. Prostatic symptoms for ten years, much aggravated during last two. Completely dependent on catheter for seven weeks. Haemorrhage, cystitis, with rigors, and temperature 104° F. from time to time. Patient very stout and feeble, suffering from chronic bronchitis. Much pus and mucus in urine, specific gravity 1012. Prostate scarcely felt enlarged per rectum, but bimanual examination revealed its size as that of a large orange projecting into the bladder, very soft and movable.

The patient's general health being improved, on October 3rd I enucleated the prostate entire in its capsule, Major J. G. Gordon, I.M.S., and Dr. J. A. Potts, Ross, Hereford, being present. I also removed an oxalate of lime calculus weighing 34 gr. from the bladder. Time occupied six minutes. Troubled much with bronchitis for a few days after operation, but strength gradually improved. Some urine passed naturally October 15th, wound dry October 18th. Went home perfectly well November 5th; able to pass and retain urine as well as ever. On March 10th, 1905, he called to see me in excellent health. Could retain urine four or five hours by day and six or seven by night, and pass it with perfect ease; in fact, better than he ever did previously.

The prostate, which weighs 5½ oz., had several polypoid outgrowths in the bladder from the right lobe, which is twice the size of the left.

CASE CXXXI.

On September 19th, 1904, I saw, in consultation, with Dr. H. S. Stone (Reigate), a well-known public man, aged 71, who had suffered from prostatic symptoms, gradually increasing for twelve years, much aggravated during past year. Catheter passed five months previously, and 2 oz. urine drawn off, employed regularly since then, sometimes introduced with much difficulty. Severe attack of cystitis, with fever, three weeks before; much pus and mucus in urine. Has latterly lost flesh rapidly and become dull, listless, and with want of energy; much pain in penis; blood occasionally in urine. Prostate enlarged bilaterally, smooth, rather hard, movable; felt bimanually. I made a cystoscopic examination September 20th and discovered a bilateral outgrowth of prostate in bladder and several round calculi lying on the trigone, like eggs in a bird's nest.

Operation fixed for September 24th, but had to be postponed owing to sharp rise of temperature to 103° F. Fever, with much pus in urine and symptoms of blood poisoning, continued for several days. There was much difficulty in introducing a catheter, which had to be tied in October 6th. Patient's condition gave rise to much anxiety, and suprapubic drainage was contemplated as a temporary measure. After the catheter was tied in, however, the temperature subsided nearly to normal, so it was decided to remove the prostate before further loss of strength occurred.

This I accomplished October 9th, Dr. Stone assisting, and Drs. J. Hewitson and Watson being present. Nine uric-acid calculi weighing 95 gr. were removed, and then the prostate was enucleated entire; weight 1½ oz. Time, six minutes. Scarcely any bleeding; no shock. The fever at once disappeared after operation, and patient's strength rapidly improved. Some urine passed per urethram October 19th. The suprapubic wound was slow in healing, owing, no doubt, to patient's previous bad health, but was practically closed November 19th. On December 30th he came to me in excellent health, having put on much flesh. He can now pass and retain urine as well as he ever did, and has resumed the duties of a more than ordinarily active life.

CXXXII.

Gentleman, aged 78, seen with Dr. J. A. Potts, Ross, Hereford, October 3rd, 1904. Retention of urine seven years previously when travelling in Belgium, relieved after twenty-four hours by catheter by a doctor at Ghent. Not troubled much after that till two years ago, when severe bleeding and pain set in, from which he was confined to bed for a fortnight. Catheter abandoned owing to difficulty of introduction. Urine passed hourly day and night with intense pain; condition most distressing. With difficulty I introduced a bicoudée catheter, and drew off 6 oz. stinking ammoniacal urine.

By cystoscopic examination on October 7th I detected two large

vesical calculi, which were also felt by the sound. Prostate greatly enlarged.

On October 10th, Dr. Potts assisting, I opened the bladder suprapubically and removed two calculi (urates covered by phosphates) weighing $2\frac{1}{4}$ oz., and then enucleated the prostate entire—a fine specimen weighing 5 oz. Both lobes were very prominent in the bladder, and the right gave off a polypoid outgrowth the size of a large gooseberry. Time, six minutes, three of which were occupied in removing the calculi. Uninterrupted recovery. Passed urine naturally October 25th, wound dry November 10th. On November 17th he left for home in excellent health, able to pass and retain urine as well as ever. On November 23rd he wrote: "I cannot but express gratitude for the marvellous success of the operation. I now make water without any pain and can retain it for seven or eight hours."

CASE CXXXIII.

J. N., aged 67, sent by Dr. Duckworth Barker, Bexhill, admitted to St. Peter's Hospital, October 4th, 1904, for prostatic symptoms of four years' duration. Had retention of urine on four occasions, relieved by catheter. Residual urine 8 oz., containing some pus and albumen. Had "a stroke" three months previously affecting the whole of left side and speech, from which he had only partially recovered. Prostate felt enlarged per rectum, bilobed, smooth, soft, movable, bimanually felt to be size of a Tangerine orange.

On October 12th I had the honour of operating in presence of Professors Poirier, Hartmann, Lucas-Championnière, Reynier, Proust, and many other distinguished French surgeons during their visit to London. The prostate (Fig. 3) was easily and rapidly enucleated entire in its

Fig. 3.—Prostate weighing $1\frac{1}{2}$ oz. removed from a patient aged 67 (Case CXXXIII). A, left lobe; B, right lobe.

capsule, the urethra behind the veru montanum coming away with it, the time occupied from commencing the operation till the prostate was delivered from the bladder being three minutes. Scarcely any bleeding or shock. The prostate, which was symmetrically enlarged, weighed $1\frac{1}{2}$ oz.

Uninterrupted recovery, some urine passing naturally November 2nd, and the wound being dry November 4th. Patient returned home quite well November 25th, passing and retaining his urine as well as ever he did. On January 20th, 1905, Dr. Barker wrote: "The operation has been a great success; he can hold his water all night with comfort, and can go for four to six hours during the day without any difficulty."

CASE CXXXVI.

Member of the medical profession, aged 73, consulted me October 4th, 1904. Symptoms of enlarged prostate seven years; entirely dependent on catheter five years. Urine clear, acid, 1020, trace of albumen. Prostate greatly enlarged, bilobed, soft, movable, felt very prominent in bladder bimanually. Mitral disease of heart with loud bruit. Seen by Sir Thomas Barlow and Dr. de Havilland Hall, both of whom considered that the state of the heart did not contraindicate the employment of an anaesthetic, provided he had a week's rest in bed with careful dieting.

On October 25th, Dr. Hewett being anaesthetist, and Mr. H. W. Carson being present, I enucleated the prostate (weighing $3\frac{1}{2}$ oz.), the lobes of which were very prominent in the bladder, particularly the left (Fig. 4, A), which spread out in the form of a fan (C' C'). In the enucleation a small portion of the left lobe was broken off, owing to inflammatory adhesions to the bladder, and was removed separately. Time, six minutes; scarcely any bleeding and no shock; in fact the pulse was better after the operation than before.

Recovered without any unfavourable symptom. Urine passed naturally November 9th; wound dry November 14th. Left the Surgical Home quite well November 26th; able to retain and pass urine as well as ever. He is now in active pursuit of his profession.

Fig. 4.—Prostate weighing $3\frac{1}{2}$ oz. removed from patient aged 73 (Case CXXXVI). B, right lobe; A, left lobe, terminating in fan-shaped outgrowth, C' C'.

CASE CXLIX.

On September 24th, 1904, I examined a patient, aged 57, sent by Dr. Latham of Cambridge. He had suffered from prostatic symptoms for seven years. Six years ago he had retention of urine, which was drawn off by the catheter, on which he had been practically dependent ever since. He has had repeated attacks of cystitis, haemorrhage, and orchitis. The urine contained pus and albumen but was acid; specific gravity 1015. The prostate was not felt much enlarged per rectum, but bilobed, dense, and movable. Bimanually it was felt projecting in the bladder. On the patient's return home he had a severe attack of cystitis with pyrexia, which prevented his coming to London for operation till the middle of November.

On November 23rd, at St. Peter's Hospital, I enucleated the prostate, which weighed $1\frac{1}{2}$ oz., entire, easily, and rapidly, the time occupied being five minutes. The prostate presented in the bladder in the form of two polypoid outgrowths (Fig. 5, B, A), that from the right lobe being

Fig. 5.—Prostate weighing $1\frac{1}{2}$ oz. removed from patient aged 57 (Case CXLIX). B and A, outgrowths in the bladder from the right and left lobes respectively, separated from the main body, C, by a narrow neck.

the size of a plum, and that from the left the size of a cherry. These two outgrowths were separated from the main body (C) of the prostate by a narrow neck produced by constriction of the sphincter muscle, a portion of which came away with the prostate.

The recovery was uninterrupted save for a slight swelling of one testicle. Urine passed per urethram on December 12th, and the wound

was dry December 18th. On December 29th he went home in good health, able to pass and retain his urine naturally.

CASE CLV.

Colonel S., aged 83, seen with Dr. J. C. Ferrier, S. Norwood, December 8th, 1904. Had prostatic symptoms six years, much aggravated the last two years. Retention of urine fifteen days previously; entirely dependent on the catheter for 10 days. Much pain and difficulty in introducing catheter; in great distress from cystitis, attempting to pass urine every few minutes. Prostate enlarged, bilobed, tense, movable; felt bimanually. Patient stout, general health fair, pus and albumen in urine.

On December 10th patient was conveyed to London in an ambulance. After washing out the bladder daily and preparing him for operation, on December 20th, Dr. Ferrier assisting and Mr. C. Braine being the anaesthetist, I opened the bladder suprapubically, removed a small urate stone weighing 39 gr., and then enucleated the prostate entire (weight, 2½ oz.). Time occupied, five minutes. Very little bleeding; no shock. No unfavourable symptoms supervened. Urine commenced to pass naturally January 9th, 1905; wound closed January 12th. On January 16th he was walking about his room; and on January 25th, when he left for home, he was in good health, passing and retaining his urine as well as ever he did. On January 28th Dr. Ferrier wrote: "I am exceedingly pleased to see how well a man of his age has done after your operation."

CASE CLX.

Gentleman, aged 80, sent by Dr. A. M. Mitchell, Guildford, January 11th, 1905. Prostatic symptoms four years. Retention one and three-quarter years ago, relieved by catheter, which has been regularly employed since then; entirely dependent thereon for one year. Cystitis, haemorrhage, intense pain in penis during and after using catheter. Urine alkaline; much pus and mucus. Has been in bed seven weeks, and is so feeble that he had to be conveyed from Guildford to London in an ambulance. Heart very feeble; pulse intermittent and irregular. Prostate bilaterally enlarged, soft, tense, movable; much pain and tenderness during examination, due probably to presence of vesical calculi. Condition of patient very distressing; catheter introduced with much pain and difficulty.

On January 16th, Dr. Mitchell assisting, I opened the bladder suprapubically and found four phosphatic calculi weighing 185 gr., which were removed. The prostate projected into the bladder in the shape of an enormously hypertrophied cervix uteri with wide irregular os. The prostate was enucleated entire without difficulty and weighed 2½ oz. Time eight minutes, four of which were expended in removing the calculi. Operation well borne, no shock.

Progress was very satisfactory, the patient regaining strength rapidly. Some urine was passed naturally January 24th, and entirely in this way after February 6th. On February 28th he went home in good health, passing and retaining his urine, which was quite clear, normally. On March 9th he wrote, "As to the water the remedy seems complete."

CASE CLXV.

Gentleman, aged 74, first seen by me at Brixton, January 18th, 1904, in consultation with Dr. A. D. Jolly. Prostatic symptoms had existed six years, during which time retention of urine had frequently occurred and was relieved by the catheter, which was, however, not habitually employed. There was intense pain and frequency of micturition and for two days the urine had contained blood. The residual urine only amounted to 5 oz., but the prostate felt enormously enlarged, globular, dense, smooth, movable and placed very high up in the rectum. Sounded, but no stone found. The patient being averse to operation I advised the employment of the catheter four or five times daily.

I next saw him January 2nd, 1905, when he desired to have the prostate removed. Though the catheter had been regularly employed five or six times daily the symptoms had grown gradually worse, so that he was now suffering from severe cystitis with alkaline urine containing much blood andropy, offensive muco-pus. The prostate was so tender that he could scarcely bear examination by the urethra or rectum. The patient's condition was, indeed, pitiable; and in addition to the local troubles he had lost much flesh, though still very stout; his pulse was irregular and intermittent, and he was suffering from chronic bronchitis with rapid and laboured breathing. Under these circumstances I declined to operate till the bronchitis should have subsided, probably during the ensuing summer; but on January 23rd he entered a surgical home and begged for operation, stating that he preferred any risk therefrom rather than employ the catheter any longer.

On January 26th, Mr. C. Braine being the anaesthetist and Dr. Jolly assisting, I opened the bladder suprapubically, and found a phosphatic calculus lying behind the prostate. This was removed, and weighed 63 gr. I then proceeded to enucleate the prostate, which was larger than a cricket ball. The lobes were symmetrically enlarged, and two-thirds of the mass lay in the bladder covered merely by mucous membrane. Owing to the stoutness of the patient and the rigidity of his muscles, even under the most profound anaesthesia, great difficulty was experienced in reaching the distal aspect of the prostate to enucleate it out of the sheath towards the rectum, and strip it off the triangular ligament. Much physical force was required in the enucleation, which occupied twenty-six minutes instead of the usual three to six minutes required. The two lobes were removed separately. There was considerable bleeding, and the patient seemed much collapsed, with feeble, irregular pulse. By the evening, however, the pulse was strong and regular, and the patient moved about in bed without aid. On February 2nd he passed urine copiously by the urethra, and on February 17th the abdominal wound had closed. The bladder had to

be washed out daily for some weeks, as the urine contained much muco-pus. On March 18th he went home in good health. He could retain 11 oz. of urine, and then pass it as well as ever he did. There was no residual urine. The prostate weighed 9½ oz. On March 30th he called to see me. He was in excellent health and spirits, able to pass and retain his urine, which was quite clear, as well as he ever did.

This case was one of the most anxious that I have dealt with, particularly as the chronic bronchitis continued for some weeks after the operation.

Tabular Statement Giving Particulars of a Recent Series of 60 Cases of Total Enucleation of the Prostate.

Serial No.	Date of Operation.	Age of Patient.	Medical Man with whom Seen, or by whom Sent.	Weight of Prostate.	Result of Operation.
	1904	Yr.		Oz.	
111	July	2 58	Dr. Walter Fox, Christchurch, N. Zealand	1 1	Successful.
112	"	2 59	Dr. J. R. R. Pollock, Tiverton	1 1	Death.
113	"	4 62	Dr. Selwyn Harvey, London	6 1	Successful.
114	"	6 66	Dr. A. J. Duncan, Dundee	2 1	"
115	"	20 61	Dr. J. W. Eakin, Port of Spain, Trinidad	3	"
116	"	21 62	Hospital case	1 1	"
117	Aug.	9 66	Hospital case	2 1	"
118	Sept.	12 70	—	1 1	"
119	"	13 75	Mr. G. C. Parnell, Forest Hill	3 1	"
120	"	15 75	Sir R. Douglas Powell	1 1	"
121	"	15 82	Dr. R. H. M. Randell, Beckenham	4	"
122	"	16 67	Mr. W. E. Thomas, Bridgend, Glam.	3 1	"
123	"	19 83	—	1 1	"
124	"	20 70	Mr. J. E. B. Burroughs, Lee	2 1	"
125	"	21 71	Hospital case	1 1	"
126	"	26 69	Dr. E. J. Cave, Bath	2 1	"
127	"	28 63	Dr. F. Ward, Ipswich	2 1	"
128	"	28 67	Hospital case	3 1	Death.
129	Oct.	3 78	Dr. W. C. Luffman, London	5 1	Successful.
130	"	8 58	—	1 1	"
131	"	9 71	Dr. H. S. Stone, Reigate	1 1	"
132	"	10 78	Mr. J. A. Potts, Koss, Herefordshire	5	"
133	"	12 67	Hospital case; Dr. P. D. Barker, Bexhill	1 1	"
134	"	10 67	Dr. A. Churchward, South Norwood	3 1	"
135	"	24 70	Dr. R. S. Mair, London	2 1	"
136	"	25 73	Dr. de Havilland Hall, London	3 1	"
137	"	26 58	Hospital case	1 1	"
138	"	31 73	Mr. F. W. Wright, South Godstone	3 1	Death.
139	"	31 63	Colonel J. H. P. Boileau, R.A.M.C.	2 1	Successful.
140	Nov.	1 78	Mr. Sydney Hulke, Walmer, Major W. H. Pinches, R.A.M.C.	2 1	"
141	"	2 71	Hospital case; Dr. E. Thompson, M.P., Omagh	2 1	"
142	"	5 64	Dr. Walter Berry, Lowestoft	3 1	"
143	"	7 67	Dr. A. H. Croucher, Eastbourne	2 1	"
144	"	9 65	Hospital case; Dr. A. Milne-Thompson, Portsea	3 1	"
145	"	12 64	Sir Alfred Cooper	1 1	"
146	"	15 75	Mr. J. W. Gooch, Windsor	2 1	"
147	"	17 65	Dr. N. McCaskie, London	1 1	"
148	"	21 73	Dr. A. G. Wells, West Kensington	1 1	"
149	"	23 57	Hospital case; Dr. P. W. Latham, Cambridge	1 1	"
150	Dec.	1 60	Dr. W. A. Michie, Greenwich	3 1	"
151	"	5 70	Dr. W. Y. Orr, Fulney	4 1	Death.
152	"	6 63	Dr. J. C. Ferrier, South Norwood	1 1	Successful.
153	"	7 57	Hospital case; Dr. J. J. Hanley, Shipley	1 1	"
154	"	10 63	Dr. E. H. Greves, Bournemouth	2 1	"
155	"	20 83	Dr. J. C. Ferrier, South Norwood	2 1	"
156	1905	5 63	Mr. Thos. Lucas, Cambridge	3 1	"
157	Jan.	9 67	Surgeon-General Stephenson, A.M.S.	2 1	"
158	"	16 68	—	1 1	"
159	"	11 69	Hospital case	2 1	"
160	"	16 80	Dr. A. M. Mitchell, Guildford	2 1	"
161	"	18 74	Hospital case	1 1	"
162	"	19 54	Dr. A. Eytton Lloyd, Rhyll	1 1	"
163	"	25 67	Dr. G. F. Huggill, Balham	2 1	"
164	"	25 72	Hospital case	4 1	"
165	"	26 74	Dr. A. D. Jolly, London	9 1	"
166	"	30 64	Mr. J. W. Gooch, Windsor	1 1	"
167	Feb.	11 63	Dr. C. D. Muspratt, Bournemouth	6 1	"
168	"	15 60	Hospital case	2 1	"
169	"	25 57	Dr. E. Lloyd Jones, Cambridge	1 1	"
170	March	8 69	Hospital case; Dr. J. G. Blackman, Portsmouth	5 1	Death.

In connexion with these 60 operations there were five deaths, the details of which are briefly as follows:

CASE CXII.

This gentleman, aged 59, was sent from New Zealand by Dr. Walter Fox, Christchurch. He had suffered from prostatic symptoms for nine years, and was entirely dependent on the catheter for one year. The case was complicated by stone in the bladder, the urine being very foul and ammoniacal, and containing much pus and albumen. General health bad; suffered much from violent attacks of "indigestion." On July 2nd, 1904, I removed the prostate, weighing 1½ oz., and a large phosphatic calculus, weighing 327 gr., from the bladder. Progress was satisfactory till July 18th, when what was regarded as a severe

attack of indigestion set in. Next day he had much pain and tenderness in the gastro-hepatic region, accompanied by slight jaundice and retching. Collapse set in, and he died on July 20th. There was evidently chronic disease of the liver, possibly malignant.

CASE CXXVIII.

Hospital patient, sent by Dr. Lloyd Williams, Stone, Staffordshire. Vesical calculus removed by litholapaxy two years previously. Catheter employed for three years. Residual urine 21 oz., foul, alkaline, containing much pus; specific gravity 1012. On September 28th, 1904, I removed the prostate, which weighed 3½ oz. The operation was easily accomplished and well borne, but the patient died uraemic on October 5th. The kidneys were found extensively diseased.

CASE CXXXVIII.

Gentleman, aged 72, brought by Dr. F. W. Wright, South Godstone. Was in great distress from over-distended bladder, with extreme frequency of micturition. Would not employ a catheter. Suffering from an enormous naso-pharyngeal growth, blocking both nostrils, which had recurred after repeated removal and general catarrh of the air passages. On October 31st, 1904, I removed the prostate, weighing 3½ oz., easily and rapidly. There was scarcely any bleeding or shock, and in the evening his condition was quite satisfactory. Early next morning, however, the breathing became rapid and laboured, and there was inability to cough up the accumulation of mucus in the bronchi. The bronchial symptoms increasing rapidly, the patient died that evening of heart failure. Though chloroform was employed, the bronchitis would seem to have been induced by the anaesthetic facilitating the accumulation of mucus in the bronchi in a patient the subject of chronic catarrh with naso-pharyngeal growth.

CASE CLI.

Gentleman, aged 70, seen with Dr. W. Y. Orr, of Putney. Prostatic symptoms had existed for six years, culminating in retention of urine November 28th, 1904; catheter passed with difficulty, and about a quart of urine with blood drawn off. On December 5th, Mr. Watson Cheyne being present, I removed the prostate, which weighed 4½ oz., with great ease in five minutes, with scarcely any bleeding. The patient was extremely restless and excited the whole day after the operation. Urine very freely secreted for two days, but was of pale colour and devoid of the usual odour. Then it became scanty, and the patient died uraemic on December 8th. There was no autopsy, but doubtless the kidneys were diseased from the backward pressure of the urine for years.

CASE CLXX.

Hospital patient, aged 69, sent by Dr. J. G. Blackman, Portsmouth. Catheter employed for fifteen years; entirely dependent thereon for two years. Frequent attacks of cystitis and bleeding. Urine contained much pus, but patient seemed in very fair health and a favourable subject for operation. On March 8th I enucleated the prostate easily and rapidly—in five minutes; there was practically no bleeding or shock. Beyond some retching after operation progress was satisfactory for forty-eight hours, but on the evening of March 10th severe vomiting set in, followed by collapse, and the patient died early next morning. No autopsy was allowed.

REFERENCES.

¹ July 20th, 1901; February 1st, July 26th, November 8th, 1902; July 4th, October 17th, 1903; May 21st, October 29th, 1904.

TREATMENT OF TUBERCULOSIS AND TUBERCULIN INOCULATION.

By T. WARREN BROWN, M.R.C.S.ENG., L.R.C.P.LOND.,
Wallington.

THE treatment of tuberculosis by tuberculin being somewhat new, and comparatively few cases having been reported, a description of a case which has been under my care for a year may not be without interest.

The patient is a young lady aged 16, who when first seen by me in February, 1904, was suffering from subacute cystitis. Previously she had passed a few drops of blood at the end of micturition with some pain, but little attention was paid to this fact until I saw her and learned from her mother that her urine was thick and there was pain after passing it, and sometimes blood, and that she was disturbed several times during the night owing to the frequent desire to micturate. On examination I found the urine contained pus and a trace of blood with some calcium oxalate crystals, and treated the case as one of ordinary cystitis; when, however, no sign of improvement occurred I sent a specimen of the urine for examination for tubercle bacilli and received the following report:

Specific gravity 1016, faintly acid, albumen small amount, blood a trace, sugar absent. The deposit is excessive owing to a moderate amount of pus. With this is a very little blood and an excess of vesical epithelium; some of the cells appear to come from the deeper layers of the vesical mucosa. No casts or renal cells. Some minute crystals of calcium oxalate. Tubercle bacilli are present in small numbers.

This satisfied me that the case was one of tuberculous

ulceration of the bladder, and desiring to ascertain its extent I, in consultation with Mr. Pardoe of St. Peter's Hospital, obtained a complete cystoscopic examination of the interior of the bladder. On the right side of the neck was a small ulcer, and around the orifice of the right ureter another patch. On pressing the right kidney turbid fluid passed out of the orifice of the right ureter; there were also several nodules scattered over the mucous membrane of the bladder, but clear urine was pressed out of the left ureter. This examination clearly showed right ascending tuberculous cystitis. The patient was put on general treatment with plenty of fats and urinary antiseptics, urotropine and salol aa gr. v, tr. bellad. m x t.d.s., also ol. santal flav. m x in capsules t.d.s. She remained on this treatment until June 14th, 1904, when she was getting worse, the pain requiring morphine suppositories every night. I again consulted Mr. Pardoe, and we agreed to start the tuberculin treatment, to which her parents readily consented. I started with Koch's T.R., which I obtained in measured doses from Messrs. Allen and Hanburys, beginning with the minute dose of 1/100 mg., gradually increasing it every two days. At first no great reaction occurred beyond a slight temperature of 100°; when 1/4 mg. was reached the temperature went up to 102.2°, and pain became very severe; with 1/2 mg. the temperature was 105.4° with rigors and malaise, but strange to say the pain became better. Owing to this strong reaction I returned to 1/4 mg., which caused fair reaction and temperature 105°. I kept at this strength every other day for a week, the temperature returning to normal. I then again started on 1/2 mg., which gave a reaction with temperature 103.8° F. After this I injected 1/2 mg. every four days for about one month, and, as the patient responded in no way to this strength, the temperature keeping normal, I increased the dose to 3/4 mg., this only giving a temperature of 100° F. The 3/4 mg. was kept up for about one month, then 1 mg. was reached, which caused only slight reaction. The patient is still receiving injections of this strength once a week, and is very much better in all respects—pain very slight, micturition less frequent, and the urine almost clear, with no tubercle bacilli. The weight of the patient was increased about 2 lb. a month during the treatment. After three months of tuberculin treatment the bladder was again cystoscoped by Mr. Pardoe, who found the ulcers healed and in their place puckered scars, but there were still present the scattered nodules. It is to be hoped that these are undergoing retrograde changes, and that the disease has been cured. The patient is now living at Westcliffe-on-Sea, where she is under the care of Dr. Day, who still continues the inoculations from an immunizing as well as curative point of view. This patient's disease is localized to the bladder, and all the other organs of the body are normal; I therefore consider it was a most suitable case for the tuberculin treatment, and I do not hesitate to say that the latter has been the means of curing a disease which has always been looked upon as of progressively downward character.

TREATMENT OF SEA-SICKNESS.

By J. METCALFE SHARPE,
Surgeon, R.M.S. *Ullonia*.

As the treatment of this troublesome malady is, up to the present, somewhat indefinite, I desire to advance a theory which I hold is not altogether impracticable, and which, as ship surgeon in both the Cunard Steamship Company and P. and O. S. N. Company, I have found helpful to more than one sufferer.

Assuming that sea-sickness is a reflex action of the stomach to a central stimulus, it occurred to me that the stimulus must enter the brain by one or more of the special sense tracts. I found that the vomited material in five cases of uncomplicated sea-sickness compared in reaction with the vomit in certain organic diseases of the nervous system, namely, locomotor ataxy, etc., being very acid, the acidity being due to lactic acid, and, to a lesser degree, free hydrochloric acid. The examination was conducted in each case fifteen minutes after the administration of food. The test used was the following:

Add to a 5 per cent. solution of carbolic acid two or three drops of a solution of perchloride of iron, until fluid is a pale amethyst blue. To this add a few drops of contents of stomach, when, if lactic acid is present, the colour will change to a canary yellow.

Again, the vomiting of sea-sickness is "persistent," and occurs after everything taken into the stomach; that is to say, the simplest and least irritating articles of food are as