both cases, and in the third sibling, whose description accords with the disease, mental defect of imbecile or low moron grade was an accompaniment. This was in striking contrast to the mental state of the physically normal members of the family. In Case 2 mental defect was noted, moreover, some considerable time before physical signs became apparent.

Additional features were present. In Case 1 there was extensive bilateral atrophy of the costo-sternal portion of the pectoralis major. Wasting of this muscle in peroneal muscular atrophy has been mentioned by Brain (1947). Both patients showed involvement of the face. This is not a common accompaniment, but its occasional presence has been remarked on by Kinnier Wilson (1940). The same authority records the incidental occurrence of nystagmus and epilepsy. In both cases earlier examination indicated abnormal plantar responses. With increasing atrophy of muscles, however, it is now only possible to elicit an extensor response unilaterally in one member. In this connexion Perkoff and Tyler (1953) have noted that certain pedigrees are characterized by spasticity and increased tendon reflexes, evidence of spinal cord lesions involving the pyramidal tracts. Ford (1952) has also recorded the occurrence of hereditary spastic paraplegia with peroneal muscular atrophy.

In the differential diagnosis various rare syndromes have to be considered. A similar distribution of atrophy occurs in familial hypertrophic polyneuritis, Gower's distal myopathy, and in the syndrome described by Roussy and Levy (1926). The lack of palpable thickening of the peripheral nerve trunks, the absence of ataxia, and the presence of such myopathic features as atrophy of the sterno-costal portion of pectoralis major and involvement of the facial musculature would appear to contraindicate familial hypertrophic polyneuritis. Sensory and reflex anomalies are sufficient to exclude Gower's distal myopathy, whilst the absence of cerebellar ataxia is against a diagnosis of the equally rare hereditary ataxia with muscular atrophy of Roussy and Levy.

Summary

Three out of five siblings have been recorded as having a progressive muscular wasting beginning in the feet and associated with marked mental defect. In the two cases examined the pattern was characteristic of peroneal muscular atrophy, with some additional features only occasionally described in the disease.

I am indebted to Dr. H. S. Atkinson, medical superintendent of the Manitoba School, for permission to make use of the institutional facilities.

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A move is being made to establish a national body to co-ordinate the work of societies concerned with the welfare of deaf children. A resolution to this end was passed unanimously at a recent conference in London of the Deaf Children's Society and other organizations working in this field. Delegates at the conference represented the Scottish Association of the Deaf (Edinburgh and Glasgow branches), the North Western Deaf Children's Association, the South Wales Parents' Association for Parents of Deaf Children, the Oxford and Districts' Association for Parents of Deaf Children, and the Herefordshire and Worcestershire Association for Parents of Deaf Children. A preliminary committee was formed to draw up a constitution and was given full terms of reference to deal with the setting up of the national body.

AN ALTERNATIVE APPROACH TO THE PROSTATE

PRELIMINARY REPORT

BY

G. T. WATTS, F.R.C.S.

Senior Surgical Registrar, Professorial Surgical Unit, Queen Elizabeth Hospital, Birmingham

Since the introduction in 1945 of the retropubic operation for prostatectomy by Millin (1947) many surgeons have come to regard it as the standard procedure. That it had certain drawbacks, however, was shown by the continued use of the suprapubic and other routes by others. These various operations were well discussed by Winsbury-White (1948) and by J. Cosbie Ross (1954).

The two other most favoured alternatives to these operations are the perineal and per-urethral routes, each with its own complications and presenting difficulties of execution to any except the most expert.

It was found that the principal drawback to the retropubic operation was the difficulty in closing the capsule after removing the gland; this was not obviated when using a vertical incision into the prostatic capsule, as when it was opened the tension retracting the side of this incision caused the lower end of it to split down further and made it very difficult to close. Another drawback was the difficulty of seeing the ureters easily. The Wells operation was found to be much more satisfactory and simple to perform, except when securing haemostasis, when it was impossible to guarantee a good view of the prostatic bed; on the other hand, the ureters were easily seen and it was possible to inspect the interior of the bladder without the necessity of using a cystoscope beforehand.

Bearing this in mind, the procedure described below was adopted; this gives all the advantages of the Wells operation and also allows the same excellent view of the prostatic bed as is obtained in the Millin operation. Closure is easy, since the incision is a vertical one and can be closed with an ordinary needle-holder and half-circle needle; also, as is shown below, there is no tension that is likely to cause a split downwards at the bottom of the incision. Haemostasis is easier by this route than by any other tried.

Operative Procedure

Preparation for the operation is the same as that normally followed for prostatectomy. Catheterization should be kept to a minimum; therefore we do not routinely empty the bladder or cystoscope the patient. Unfortunately many of the patients were admitted with acute retention of urine, having already been catheterized several times. Intravenous pyelograms and blood chemistry estimations are carried out and arrangements for transfusion are made, although this last should not normally be necessary. Operation is carried out under general anaesthesia with the patient in the supine position; a slight Trendelenburg tilt is occasionally helpful, but not absolutely essential.

The usual skin incision is employed, preference being given to the transverse one, but there is no necessity to use this. The muscles are retracted and the peritoneum is pushed up in the normal way. Next, the bladder is freed below by swab pressure to display the puboprostatic ligament and the upper part of the gland. Then, while the bladder is gently drawn up by the pressure of a gauze swab, a thread suture is inserted to encircle the vein coming up on the front of the gland. The ligament should not be torn while this is done

or there will be troublesome bleeding. The stitch should also be deep enough to take a firm bite into the capsule of the gland; this serves to prevent the capsule splitting downwards later on and causing difficulty in its repair. This suture is left long as a guide when the wound is closed.

The bladder is picked up about $1\frac{1}{2}$ in. (4 cm.) above the prostate and opened with a scalpel. Any urine inside is sucked out and the incision extended with scissors, downwards to the prostate and upwards enough to allow the introduction of a self-retaining retractor such as the Millin type. Two catgut stay sutures are inserted at the bottom of this incision on either side, passing through the muscle layers only

Diagram illustrating technique of the operation.

and not through the mucosa. The prostate is infiltrated with a solution of normal saline (about 20 ml., to which a few drops of adrenaline may be added with advantage). This makes separation of the adenoma easier and reduces bleeding. A small silver probe is inserted into each ureter as a guide to its position in the next stage (this is easier if the last $\frac{1}{4}$ in. (1.3 cm.) of the probe is bent to a right angle). A circular incision of $\frac{1}{2}$ in. (1.3 cm.) radius is then made around the internal urethral meatus, using the diathermy needle. Posteriorly a notch is cut back between the ureters. When the correct depth has been reached a plane of cleavage appears, usually at about $\frac{1}{4}$ in. (0.6 cm.). At this stage the probes are removed from the ureters.

The incision is continued forwards in the midline to the bottom end of the incision in the anterior bladder wall and

over the front of the prostatic capsule between the stay sutures to within $\frac{1}{4}$ in. (0.6 cm.) of the thread suture inserted earlier (see Fig.). The adenoma is freed on all sides, using a long pair of scissors and dissecting forceps, until it is held only at its apex by the urethra; as this is being done the prostatic vessels are seen on each side and are clamped and coagulated by diathermy. The adenoma is then drawn gently up with a vulsellum and the urethra divided under direct vision. A gauze pack is inserted into the prostatic bed and left for a few minutes. It is then withdrawn and any bleeding points are coagulated. A whistle-tip catheter is passed through the urethra. The wound is closed with a continuous plain No. 1 catgut suture through the prostatic capsule and the muscular layers of the bladder only. It is started at the bottom of the incision in the prostatic capsule, and, after reaching the top, returns as a second layer invaginating the first. A few further sutures are used over these for reinforcement and the stay sutures are tied together. The cave of Retzius is drained for forty-eight hours. The wound is then closed in the usual way.

The bladder is washed out with a solution of sodium citrate before the patient is returned to the ward and a few ounces of the solution are left in the bladder for the first few hours. The bladder is subsequently washed out only if necessary, and the urethral catheter is removed in about forty-eight hours, or when the urine is clear.

In cases where long-standing distension of the bladder has made it likely to be atonic, the catheter is sometimes left in a little longer; some of these cases respond very well, however, to small oral doses of carbachol.

Illustrative Case Records

Case 8.—This patient, aged 53, first presented with clot retention of urine and a history of haematuria for seven months; he had had frequency of micturition day and night for several years and a very poor stream. He refused operation and was treated as an out-patient by his own doctor for a week by catheterization. At operation a large benign gland with a prominent middle lobe was removed, together with six bladder stones. The urine was infected with *Staphylococcus aureus*, which was sensitive to penicillin. Urine was passed on the second day without any difficulty within two hours of removal of the catheter. The infection cleared rapidly on penicillin.

Case 9.—After a partial gastrectomy for a high lesser-curve ulcer, this patient, aged 78, developed acute retention of urine on the third post-operative day. Owing to his age and the absence of previous urinary symptoms he was catheterized repeatedly, but still failed to pass urine after ten days. At operation a small adherent gland was removed.

TABLE I

Case No.	Age	History	Hb (%)	Previous Cath.	Blood Urea (mg./100 ml.)	Infection (Pre-operative)	Anti-biotics	P.U. (Days)	Wt. of Gland (g.)	Pathology
1	73	Many years' difficulty. D/N=12'4. Acute retention 1 day	82	+				3	40	Benign
2	88	Several years' frequency. Acute retention 2 days	104	+	33	+	S, A, O	4	90	"
3	84	Several years' frequency. Acute retention 2 days	78	+	48	+	S	3	—	Adenocarcinoma
4	82	1 month's frequency and difficulty. Acute retention 2 days	94	+	28	+	S	3	50	Benign
5	65	Several months' frequency. Acute retention 3 days		+		+	S, C	2	60	"
6	70	2 years' frequency. Acute retention 5 days	114	+	51			2	42	"
7	72	No frequency. Acute retention 8 days	77	+	27			5	26	"
8	53	Gross frequency. 7 months' haematuria	98	+			P	2	90	Benign; bladder stones present
9	78	Acute retention 3 days after partial gastrectomy	86	+	45	+		3	17	Adenocarcinoma
10	63	Cardiac failure 1 year, with pre-renal uraemia. Acute retention 2 days	50	+	265			3		Benign with calculi
11	69	Acute retention 1 day		+	41	+	S	2		Benign
12	61	Several years' frequency. Acute retention 1 day	74	—	54			4		"
13	81	Acute retention 2 days	70	+	83			2	90	"

P=Penicillin. S=Streptomycin. A=Chlortetracycline. C=Chloramphenicol. O=Oxytetracycline.

Urine was passed on the third post-operative day, within two hours of removal of the catheter. The infection of the urine (*Streptococcus faecalis*) was resistant to all antibiotics but cleared spontaneously within a few days of operation. Histology showed an adenocarcinoma of the gland.

Case 10.—This patient, aged 63, was under treatment for cardiac failure and chronic bronchitis; there was gross oedema and venous congestion, and when first seen he was uraemic, with a blood urea of 190 mg. per 100 ml., and semi-comatose. Catheterization, however, showed that, although there had been a past history of frequency and difficulty in micturition, the uraemia was due to renal failure. A week later the urinary output improved and he developed acute retention of urine. He was then slightly more conscious, although his blood urea had risen to 265 mg. per 100 ml. At operation a very small adherent fibrous gland, containing calculi, was removed. Urine was passed on the third post-operative day, but the bladder was somewhat atonic and it was necessary to give carbachol orally for a week before normal micturition was fully established. The cardiac and renal functions improved slowly but steadily.

Case 11.—On admission this patient, aged 69, had acute retention of urine due to a large diffuse hypertrophy of the prostate; there had been no urinary symptoms until a few days before admission. He had been catheterized several times. At operation a large gland was found and enucleation was easy. Urine was passed on the second post-operative day, within two hours of removal of the catheter; an infection with *Staph. aureus* cleared spontaneously after operation. (Streptomycin was given, but it was later found that the organism was resistant to this antibiotic.)

Discussion

The operation described above compares favourably with other standard routes. The results of the cases so treated are summarized in Table I. There have been no operative deaths in this series, despite the fact that patients up to the age of 88 (Case 2) and with blood urea levels as high as 265 mg. per 100 ml. (Case 10) have been treated. The greatest difficulty has been caused by infection from pre-operative catheterization. No other complications have occurred to date, although it is of course possible that pyelonephritis, renal failure, and reactionary or secondary haemorrhage could occur in these cases under propitious circumstances. The improved exposure, of course, makes the likelihood of haemorrhage much less than in either the retropubic or the suprapubic route. Suprapubic leak has not been a problem, owing to the fact that it is much easier to close this incision than a retropubic one; it is no more difficult to close, in fact, than an ordinary suprapubic cystotomy. In no case has control of micturition been impaired.

The indications for this operation are the same as for any form of prostatectomy, as the advantages of both suprapubic and retropubic approach are combined. There does not seem to be any type of prostate which cannot be dealt with by the anterior route. The only contraindications are those affecting the patient's general health, although here again the greater ease with which the operation is carried out gives the surgeon a much wider scope. Infection, though troublesome, is not a contraindication, and often appears to

settle much more rapidly after the operation than would be expected merely from the administration of antibiotics—for example, Cases 9 and 11, where the organisms were "resistant." A brief analysis of the results is given in Table II.

The only other operation which allows a view of the bladder and prostatic bed is that described by Ogier Ward (1948, 1949), but the prostatic capsule is not opened in front and the field of view is much more restricted than in the operation described above. It is felt that the advantages of this operation lie principally in the fact that it is simple to perform and less likely to give rise to trouble in the hands of the general surgeon than the other more complicated operations at present in use.

Summary

A new but simple method of exposing the prostate was sought to combine the advantages of the retropubic and suprapubic routes. In the former, difficulty in closing the capsule is a problem, but there is an excellent view of the prostatic bed. In the latter, closure is easy but haemostasis difficult; there is, however, a good view of the bladder and ureters.

In this operation both bladder and prostatic capsule are opened by a vertical incision. A suture at the lower end prevents a split downward. Incision of the bladder mucosa, enucleation of the adenoma, coagulation of vessels, and division of urethra are all done under direct vision. Closure is by continuous suture.

The results of a small series of cases are given which compare favourably with those of other methods in current use. There were no complications.

The advantage of this approach is that all steps are taken under direct vision and the operation is therefore made much easier.

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TABLE II

Total No. of cases	13
Average age	72 years
Pathology	
Benign	11
Malignant	2
Calculi	2
Average weight of gland	56 g.
Cases of acute retention	12
" catheterized pre-operatively	12
" with infected urine following previous catheterization	7
Cases developing infection post-operatively	0
" receiving antibiotic	6
" more than one antibiotic	2
Blood urea average	68 mg./100 ml.
Average	3 days
Micturition post-operatively:	
On second day	5 cases
" third day	5 "
Over three days	3 "

The World Federation for Mental Health has now published the proceedings of its eighth annual meeting, held in Istanbul, August, 1955, under the title "Family Mental Health and the State." The proceedings are divided into seven parts, the first being devoted to the inaugural ceremony with the addresses of welcome by Dr. BECHET Uz, Turkey's Minister of Health and Social Welfare, and Professor F. K. GÖKAY, Governor-Mayor of Istanbul, and the presidential address on the peaceful use of human power by Dr. F. FREMONT-SMITH. The second section, on mental health and family life, has papers on normal, delinquent, and handicapped children. Contributors are Dr. K. SODDY, Dr. E. NOYAN and Dr. H. BILGINER, Professor N. KUNTER, Dr. J. RIOCH, Dr. A. REPOND, Professor A. C. PACHECO E SILVA, and Dr. P. DOUSSINET. Dr. R. SPITZ's contribution on emotional stress and its consequences makes the third section. The fourth section is on education, the contributors being Mr. C. HAMBRO, Dr. B. ARKAN, and Mr. M. ENÇ. Section five deals with cultural change and mental health, Dr. MARGARET MEAD introducing a panel session with speakers from Turkey, Thailand, Lebanon, Israel, Iran, Yugoslavia, Cyprus, and Malaya taking part. Finally there are reports of the work of the United Nations and its specialized agencies, and an account of the closing session. A copy of the report may be obtained from the W.F.M.H., 19, Manchester Street, London, W.1, price £1.