showed periostitis and osteitis of the tibial shafts. The child was treated with penicillin and bismuth and rapidly improved.

When he was brought to this clinic at the age of 4 months he appeared to be quite normal apart from an enlarged liver. His Wassermann reaction was negative, the Kahn test was weakly positive, and x-ray films of the tibiae showed healed periostitis. A month later the liver appeared to be normal and the blood tests were negative. The serological reactions have remained negative up to the time of writing, when the child was aged 2 years, and he seemed to be remarkably healthy. When the mother was first seen at this clinic four months after delivery she had no signs of syphilis and had had no treatment. Her Wassermann reaction was negative and the Kahn test weakly positive; both the cerebrospinal fluid and chest x-ray film were normal. She told us that she had been raped in a Russian P.O.W. camp in 1945 and thought that she may have been infected then, though she had no signs and had never had any treatment. She denied extramarital intercourse since then, and said that she had never had penicillin at any time. She was given routine penicillin treatment, and three months later her blood tests were sero-negative and have remained so for 20 months. The two older children and her present husband were examined. There were no signs of syphilis and all their blood tests were negative. The husband said that he had had balanitis during the war, but afterwards had had several blood tests which were negative, and he had never had penicillin.

In such a case it must not be forgotten also that the serological reaction is only part of the puzzle which has to be fitted together to make the diagnosis of syphilis. The whole picture, including the history of the patient, the family, and the husband, and the clinical signs, must be correlated. If, after that, doubt is still present, it is safer to treat than risk permanent damage to the child.

Summary and Conclusions

The problem of the weakly positive blood test for syphilis in pregnancy is discussed.

It is suggested that, if the weakly positive blood tests cannot be shown to be non-treponemal in nature, "insurance" treatment should be given to the mother as early as possible in pregnancy.

A case is described in which a woman with no history of syphilis but whose blood tests were repeatedly weakly positive gave birth to a child with marked signs of syphilis and strongly positive blood tests. The father of the child was not infected.

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In his recently published annual report for 1953, Dr. K. A. SOUTAR, county medical officer of Surrey, states that the number of confinements taking place in hospitals has increased and the number of domiciliary confinements has decreased. Of the total births in the county, 72% took place in hospitals and 22% in the mothers' homes. A survey carried out in Surrey during the past two years showed that even though there were no medical or social reasons for hospital confinement a number of women went to hospitals to have their babies. In general, maternity units are keeping mothers in hospital for 10 days after the confinement. This is the minimum period permitted by the Central Midwives Board. Dr. Soutar thinks that there are enough maternity beds in the county for it to be well worth while to consider the advantages of extending the stay in hospital to at least 14 days.

A RATIONAL APPROACH TO PROSTATECTOMY

BY

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It seemed necessary to write this short paper, an affirmation of certain principles, in view of the trend of the literature about prostatectomy at the present time. A study of recent papers would induce the superficial reader to think that a uniform operation was all that was required. The fact that different writers advocate different operations gives the clue to the present muddle.

Obstruction at the bladder neck is due to a variety of causes, and no single operation can possibly cover all these different types.

It is necessary to choose the correct treatment for each type of obstruction—in fact, for each particular patient (Cosbie Ross, 1936). Although obstruction at the bladder neck in the elderly patient may be due to an adenomatous enlargement, it may also be caused by carcinoma, a median bar, "sclerosis" of the bladder neck, an adenoma arising in one of the glands of the prostatic urethra, Marion's disease, etc., and I suggest that it is unnecessary and unwise to submit all these patients to a suprapubic operation when some of them can be dealt with more effectively by perurethral methods. A recent paper describes all types as being treated by the Wilson Hey operation irrespective of whether the cause was adenoma or carcinoma.

At the Urological Department of the Sefton General Hospital the figures for the year 1952 (see Table) emphasize the range of treatment required for dealing with this complex condition.

Operations Carried out for Obstruction at the Bladder Neck in 1952

Retropubic prostatectomy	..	..	..	16
Wilson Hey	..	..	..	12
Cold punch	..	..	..	25
Suprapubic prostatectomy with drainage	..	..	..	9

I have always thought that Wallace's (1951) views have not, so far, received the considerations and weight they deserve. Wallace suggested that it is the amount of muscular tissue in the region of the bladder neck which is the big factor. He pointed out that dogs grow large prostates in old age but never have retention, because there is no muscular tissue at the bladder neck. He investigated, by differential staining, wedges of the bladder neck removed at operation and at post-mortem examination in a large series and distinguished the relative amounts of muscle and fibrous tissue. He found that a small adenoma with a well-developed musculature at the bladder neck was likely to cause obstruction, whereas a much larger adenoma with poorly developed musculature was compatible with a normal bladder and satisfactory micturition. He found many muscular fibres in cases of "sclerosis" of the bladder neck and in Marion's disease, and quoted the action of ephedrine in precipitating acute retention. There seems to be little doubt that Wallace's findings explain many anomalies in obstruction at the bladder neck.

It is, of course, well known that not all patients with mild prostatic symptoms require operation. Chapman (1949), in a most interesting paper, showed that if a number of

patients with mild prostatic symptoms were followed up for a prolonged period some of them did not appear to change, and remained *in statu quo* indefinitely as regards both symptoms and residual urine. He mentioned the three classical types of prostatic enlargement—progressive type, sudden acute retention without previous symptoms, and silent prostatic obstruction without marked urinary symptoms—and thought that a fourth category consisting of the non-progressive cases should be added. In this fourth type there is no deterioration over the years, and when death occurs some other cause is responsible.

Conservative measures include regular two-hourly evacuation of the bladder, "double micturition," restriction of fluids after 7 p.m., and avoidance of prolonged cold journeys leading to overloading of the bladder.

On the other hand, if there is troublesome nocturia and an appreciable residual urine surgical measures are necessary.

Chronic Retention of Urine

It is agreed by all authorities that patients with chronic retention of urine require certain investigations before operation, including a straight x-ray film of the urinary tract, an intravenous pyelogram, a blood urea estimation, and microscopical examination of the urine. These investigations are bare essentials, and it is also necessary to investigate the cardiovascular and respiratory systems of these elderly and frequently decrepit old men. It is the patient with an acute retention superimposed on the chronic retention about whom there is the greatest controversy. It is in this type that many surgeons advise and practise "immediate prostatectomy" without any investigation or preparation whatsoever, a policy which to me seems to be both dangerous and unnecessary. If it is advisable to investigate the chronic retention it is even more necessary to investigate the acute retention superimposed on the chronic. These patients are delicately poised on a knife-edge, with uraemia on one side and urinary infection on the other. Apart from any other consideration these men need several hours' preparation, as many have voluntarily restricted their fluid intake, perhaps for weeks, and are consequently dehydrated.

The pain of the retention can be overcome by inserting a Barker lumbar-puncture needle suprapubically and allowing the urine to drain through a fine rubber tube. The lumbar-puncture needle, the correct angle of which is maintained by transfixing a large flat cork which is strapped to the abdominal wall, can be left *in situ* for twelve hours, if need be, while the necessary investigations and preparations are carried out. The use of the needle does not prejudice the subsequent operation, whatever it may be.

Preliminary Cystoscopy

Up to the point where the patient has entered the theatre no catheter should be passed through the urethra. It is not necessary to be fanatical on this single point, and many prostatectomies with closure are carried out successfully in spite of catheterization before entering hospital. It remains, however, a hard fact that catheterization before operation diminishes the prospects of speedy and successful treatment.

Once the patient has been anaesthetized, however, there are great advantages in carrying out a cystoscopy before beginning the operation. These advantages include: (1) A stricture of the urethra becomes immediately apparent and the humiliating experience of discovering that a urethral stricture is the real obstructive factor *after* removal of a harmless prostate is avoided. (2) Minute papillomata, which may be overlooked when the bladder is opened, are seen, and are treated with diathermy. (3) A careful inspection of the obstruction, combined with a digital examination with a finger in the rectum while the cystoscope is still *in situ*, will confirm the preliminary impression regarding the best method of dealing with this particular patient. At the same time a doubtful prostate may be found to be carcinomatous, thereby avoiding a pointless and sanguinary attempt to enucleate a malignant lesion.

Operation

At the cystoscopy a final decision is made on the operation required. I believe that most of the operations advocated have a place in treatment, with the exception of the perineal prostatectomy, with which I have not had much success. (1) The retropubic or Millin operation is best for the large prostate in which there is ample expanse of capsule available for suture. The clear and direct view of the cavity facilitates diathermy of bleeding-points. (2) The Wilson Hey or transvesical operation seems to be best suited for medium enlargements and also for cases in which the cystoscopy reveals some concomitant condition in the bladder such as a diverticulum. (3) Perurethral resection is most suitable for the median bar, for "sclerosis" of the bladder neck, for Marion's disease, etc. I personally prefer the Gershom-Thomson cold punch, but equally good results are obtained using such modifications of the McCarthy resectoscope as the Reid-Nesbit machine.

Perurethral resection is, moreover, the right and proper operation for carcinoma of the prostate. The diagnosis is confirmed microscopically and at the same time the obstruction at the bladder neck can be removed. The operation can, if necessary, be repeated should the obstruction reform at a later date, but it is surprising how infrequently this is required.

Bad-risk Patients

I would like to say a final word about bad-risk patients, who are all too familiar. They fall into two clearly defined groups: (1) The patient admitted to a medical ward with congestive cardiac failure, hemiplegia, or some other serious medical condition complicated by acute retention of urine, probably superimposed on a long-standing obstruction. (2) The patient admitted with retention whose investigation reveals extremely poor renal function. In such a patient there is no secretion in the intravenous pyelogram and the blood urea is considerably raised. I would add to these groups the patient with mental "clouding" and disorientation.

In either of the groups a suprapubic operation, whether Wilson Hey or Millin, must carry a great risk. It is not necessary to take this risk. Instead, a Riches (1943) catheter is inserted suprapubically, and operation is postponed until the medical condition has been dealt with or the renal function has improved, as it undoubtedly does in most cases. When the operation is eventually carried out in this type I usually find that it is safer to confine myself to the perurethral method, as this puts little strain on the patient, but the previous insertion of a Riches catheter does not prevent a subsequent suprapubic operation, either Wilson Hey or Millin.

I will conclude by quoting from a paper I wrote in 1936. "A study of recent papers suggests that urological opinion is sharply divided into two well-defined schools of thought. Some authorities consider the suprapubic approach essential in all cases, while others urge transurethral resection for even the largest prostates. Impressive series of cases and their excellent results can be, and are, shown by both sides. When opposing views are thus held on medical problems it is customary to find that the truth lies at some intermediate point, and it is our duty to determine so far as possible its approximate site."

Summary

Obstruction at the bladder neck is due to a variety of causes, and consequently different methods of treatment and different operative procedures are required in dealing with these diverse lesions.

It is important to carry out certain minimal investigations on all patients, whether suffering from chronic retention of urine or acute retention on chronic.

A cystoscopy, carried out immediately before the operation, is of great help in confirming the diagnosis and in deciding whether the suprapubic or perurethral approach is indicated.

In the bad-risk patient it is safer to insert a Riches catheter under local analgesia and to await improvement in the general condition or in the renal function before undertaking prostatectomy.

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IDIOPATHIC HYPOPARATHYROIDISM PRESENTING AS DEMENTIA

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Idiopathic hypoparathyroidism is a rare condition which presents in a variety of ways and which, once diagnosed, is very amenable to treatment. The subject has recently been fully reviewed (de Mowbray *et al.*, 1954), and we shall therefore confine ourselves to a few comments.

The criteria for diagnosis were discussed by Drake *et al.* (1939). They include chronic tetany, low serum calcium, and high serum inorganic phosphate with normal renal function. Other features often found in these cases are epileptiform attacks; mental changes; cataracts; defects in other ectodermal structures such as dryness and coarseness of the skin, cutaneous calcium deposits, thinness and scanty growth of hair, trophic changes in the nails, and poor dental development, with failure of eruption, faulty enamel, and acalcification of the dentine (experimentally produced in rats by Erdheim in 1911, quoted by Albright and Strock, 1933). Radiographic changes include symmetrical calcification of the basal ganglia and thickening of the cortical layers of the long bones. The aetiology of the condition is still obscure.

The pathology was discussed by Drake *et al.* (1939), who found that in one case at necropsy all four parathyroid glands were present and appeared macroscopically normal, but consisted histologically of an excessive number of fat cells, replacing the normal epithelial cells. In 1946 Leonard (quoted by Albright and Reifstein, 1948) described a case in which the parathyroid glands were absent. Occasionally idiopathic hypoparathyroidism was found to be associated with other endocrine disorders such as Addison's disease or hypothyroidism. More often, monilia infection of the nails and mucosae was observed.

Cases occur in any age group, but the majority appear to have been found either in childhood or between 38 and 52 years. Our case is of interest because of the late onset of the symptoms and the mode of presentation.

Case Report

The patient, a widow aged 61, was admitted to the Whittington Hospital on February 11, 1954, with a diagnosis by her doctor of status epilepticus. No reliable history could be obtained either from her or from her relatives, but it seemed that her symptoms had begun seven years before admission, shortly after the death of her husband,

with depression and gradually increasing loss of interest in her surroundings and her appearance. Some time after the onset bilateral cataract operations had been performed. For several years she had occasionally complained of numbness and tingling in the legs. In 1951 she had attended the outpatient department of the National Hospital, Queen Square, with giddiness and tremors of the hands; mild anxiety symptoms were observed, and an x-ray film of the skull showed calcification of the basal ganglia. Although asked to attend again, she had failed to do so and was not seen again at any hospital until her present admission. Since 1952 there had been episodes of urinary incontinence, and "fainting spells" had occurred in the past six months; twitching of the limbs had been observed in the past three months. For the past five weeks there had been considerable mental deterioration, with confusion and loss of memory. The first epileptiform attack had occurred two days before admission. From the description given by the relatives this had consisted of generalized tonic and clonic contractions preceded by a cry and followed by two hours' sleep. Several similar attacks had occurred in the next forty-eight hours.

On arrival in hospital the patient was conscious but disorientated, apathetic, and unable to concentrate. She attempted to co-operate in the examination, but could not give any details of her illness or carry on a rational conversation. Her general condition was one of extreme neglect; she was thin and pale, and doubly incontinent. The heart, lungs, and abdomen were normal and the blood pressure was 150/95. The only teeth present were the upper four incisors, which were misshapen and carious. She had a slurring dysarthria and a fine lateral nystagmus. Bilateral iridectomies had been performed and both lenses had been removed. The fundi showed choroido-retinal degeneration; there was no papilloedema. All tendon reflexes were diminished and neither ankle-jerk could be obtained; both plantar responses were feebly extensor. Otherwise the central nervous system was normal.

During the first few days in hospital atypical epileptiform attacks were witnessed, in which a hoarse cry was followed by tonic contractions involving the whole body. Between these the patient lay in bed showing no kind of initiative and had to be fed and washed. It was observed that she frequently adopted a position of flexion at the large joints of the arms and legs, with occasional writhing movements of the arms. No improvement was obtained with phenobarbitone. On the twelfth day of her stay in hospital definite attacks of tetany with carpal spasms were first seen. Chvostek's sign was positive; biochemistry at this time was as follows: serum calcium, 6.5 mg. per 100 ml., repeated the following day, 5.1 mg.; serum inorganic phosphate, 10.4 mg. per 100 ml.; and serum alkaline phosphatase, 4.5 King-Armstrong units. Renal investigations, estimation of faecal fats, and alkali reserve were normal.

FIG. 1.—Radiograph showing calcification of basal ganglia.