MODIFIED MILLIN'S PROSTATECTOMY IN A DISTRICT HOSPITAL

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SUMMARY

The paper discusses the results of 24 cases of Millin's prostatectomy in a District Hospital carried out between April and December 1983.

The results show that the blood loss in the operation is usually not more than 600ml and therefore would not pose a strain on the blood bank. Postoperative bleeding is very minimal and again does not tax the nursing staff of an overcrowded, large ward in the District Hospital. The results for the patients are excellent.

INTRODUCTION

The commonest cause of urinary retention in men over 50 years of age is benign prostatic hypertrophy.[1] In more advanced centres, patients are usually offered transurethral resection of prostate (TURP). Overall TURP is safer and has less postoperative morbidity and mortality – especially important in view of the fact that the disease afflicts older males.[2]

However centres offering TURP are few and far apart, even in the United Kingdom where only 20% of benign prostatic hypertrophy are treated by TURP.[3] Therefore open prostatectomy has an important role in our country where even fewer centres are offering TURP.

Open prostatectomy has been associated with a frightening reputation of massive blood loss, operatively and postoperatively. Many surgeons have shied away from this operation. In Taiping District Hospital, no significant number of open prostatectomy was done before 1982 (Table I).

METHODS

24 patients with benign prostatic hypertrophy with urinary retention had Millin's operation done between April and December 1983. All patients with the usual indications for surgery were operated on, except for those who refused surgery. Estrogen was not used at all as it is generally ineffective. (Table II).[4]

The age of the patients range from 50–85 years, the majority being between 60 – 79 years.

TABLE I
PROSTATE OPERATION IN TAIPING DISTRICT HOSPITAL

Year	No. of Cases
1978	0
1979	3
1980	0
1981	0
1982	10
1983	24

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TABLE II
MILLIN'S OPERATION IN TAIPING DISTRICT HOSPITAL 1983

Age (yrs)	No. of patients
50 – 59	2
60 – 69	11
70 – 79	7
80 – 89	4
Total	24

Indications for Surgery

The majority (18 out of 24) had acute or chronic retention of urine with a variable period of prostatism. They were admitted and catheterised with self-retaining catheter. 48–72 hours later, the catheter was removed. If they failed to pass urine and developed retention of urine again, they were recatheterised and offered surgery at the next available operating day (Table III). Three had been on catheter for three to five years!

Three presented with gross and continuous hematuria (one developed clot retention and required emergency prostatectomy). In additon six of them had associated bladder stone or stones.

Investigation

The basic investigations include haemoglobin, urine feme and culture, serum electrolytes and creatine. ECG, chest and KUB X-ray were the other investigations. Intravenous pyelogram was not done except in those with hematuria.

TABLE III
INDICATION FOR MILLIN'S OPERATION IN TAIPING DISTRICT HOSPITAL 1983

Complaints	No. of patients
Inability to urinate	18
Chronic catheterisation	3
Gross hematuria	3
Total	24

TABLE IV
URINE CULTURE RESULTS: MILLIN'S OPERATION IN TAIPING DISTRICT HOSPITAL 1983

Bacteria	No. of patients
E. coli	1
Klebseilla	7
Pseudomonas	2
Proteus	4
E. coli and *Pseudomonas*	1
Proteus and *Pseudomonas*	1
Total	16

None were in renal failure. 16 of the 24 patients had infected urine (Table IV).

Operative procedure

Eight patients had epidural anaesthesia and one had spinal anaesthesia as they were considered unfit for general anaesthesia. There were no complications with any of these patients undergoing this form of anaesthesia except for hypotension which was corrected with intravenous fluids and use of intravenous aramine. All had Millin's operation, as described in the standard textbook.

A skin crease suprapubic incision was used. As described by Millin, the prostatic vessels were visualized and stitched after the enucleation. And at the end of operation, the operative field was "dry".

A suprapubic catheter for post-operative flushing was used as a three-way urethral catheter was unavailable.

The majority (17) of the prostate adenoma was in the 30–79 g range. The largest weighing 130g and the smallest 16.5g (Table V).

Operative blood loss is listed on Table VI. The majority (16) had blood loss less than 600ml. Of the four with greater than 1200ml blood loss, two were operated for gross hematuria. (The operative blood loss in these two cases included blood clots already present in the bladder.)

TABLE V
PROSTATE WEIGHT: MILLIN'S OPERATION IN TAIPING DISTRICT HOSPITAL 1983

Weight of prostate (g)	No. of patients
10 – 19	2
20 – 29	0
30 – 39	5
40 – 49	5
50 – 60	2
50 – 69	3
70 – 79	2
80 – 89	0
90 – 99	3
100 – 109	0
110 – 119	1
120 – 129	0
130 – 139	1
Total	24

TABLE VI
MILLIN'S OPERATION IN TAIPING DISTRICT HOSPITAL

Blood loss (ml)	No. of patients
100 – 199	2
200 – 299	1
300 – 399	3
400 – 499	4
500 – 599	6
600 – 699	2
700 – 799	1
800 – 899	0
900 – 999	1
1000 – 1099	0
1100 – 1199	0
1200 – 1299	2
1300 – 1399	0
1400 – 1499	1
1500 – 1599	0
1600 – 1699	1
Total	24

Of the other two with more than 1200ml operative blood loss, one was a result of bleeding from a torn pelvic vein and the other occurred when the false capsule was avulsed from the bladder while enucleating the adenoma. (It happened whilst teaching a Medical Officer to treat the case. The finger went behind the whole prostate instead of through the cleavage plane between the adenoma and capsule.)

Postoperative hemorrhage

Using the method described by Millin, the post operative blood loss was negligible. The flushing effluent was very mildly blood-stained. None of the patients required postoperative blood transfusion (except for the two who required re-operation). The majority did not require flushing for more than 24–48 hours. Two patients required re-operation due to postoperative hemorrhage in the first six hours after operation.

Two patients developed secondary hemorrhage on the fourth and fifth postoperative day. They spontaneously cleared up.

Other complications

One patient required re-opening of the bladder to remove the tip of the suprapubic catheter which had fractured while being removed when flushing was stopped.

Incontinence

Two patients developed temporary incontinence. However all were discharged continent of urine.

Infection

None developed wound breakdown, though invariably all had slight erythema around the wound and stitches.

All patients had temporary suprapubic fistula after removing the catheter. They all healed spontaneously except one patient who required recatheterising.

All were discharged with a completely healed wound, a good urine stream and were continent. None developed epididymo-orchitis.

Antibiotics

All patients were put on antibiotics for those with urine infection, the antibiotic used was based

on the bacterial sensitivity. Otherwise a combination of ampicillin and gentamycin were given. All the patients were put on antibiotics for a duration of seven to ten days. The two patients with secondary hemorrhage had antibiotics for two weeks.

None of the patients had clinical symptoms of urinary tract infection or discharge. (No further urine bacterial culture was carried out.)

Sterility and impotency

As the majority of the patients are elderly it is difficult to elicit the aspect of sterility and impotency. Millin[5] in his study stated though that sterility is the rule. Similarly the incidence of impotence was not studied.

All had at least one follow up at the time of writing the report. All of the patients studied continued to enjoy a good and continent urinary stream without requiring straining. All had healed scars.

DISCUSSION

Retropubic prostatectomy was described by Millin in 1945. Amongst the open operation for removal of the prostate, it is safest.[2]

But compared to TURP, the mortality is slightly higher.[3] On the other hand, recurrent prostatic obstructions at a later date is more prevalent in TURP than in open prostatectomy.[2]

Permanent incontinence is a problem with any form of prostatic surgery but more prevalent in TURP than Millin's prostatectomy.[2] In our country, TURP is not widely available. Open prostatectomy will still have an important role for a long time to come.

The study showed that open prostatectomy of the Millin's type is safe even in elderly patients. Blood requirements for the operation is not more than other general operations and the blood bank service of any district hospital in this country can easily sustain the 'demand' of blood for such an operation.

Anaesthetic-wise, the operation can be done under epidural or spinal anaesthesia. In our country where the anaesthetic service is facing a severe shortage of manpower, such forms of anaesthesia can be performed by the surgeon himself. I do not personally feel that blood loss is less with epidural or spinal anaesthesia. In fact I prefer the patient to be normotensive throughout in order to achieve adequate hemostasis.

Because hemostasis is secured in Millin's operation, there is little danger of clot retention postoperatively. There is no need for a fulltime nursing personnel to be watching and changing the flushing solution fequently through the night just for one patient.

Again in a district hospital where the wards are usually large and overcrowded and the nursing staff minimal, Millin's operation will not tax the time and efforts of nursing staff to look after one patient whilst neglecting the others.

The results of this study showed that Millin's operation is safe and should be in the armamentarian of all general surgeons in this country.

ACKNOWLEDGEMENT

To Cik Latifah for typing the manuscript; the Medical Superintendent, Taiping Hospital; and the Director General of Health for permission to report on this study.

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