Original Article

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Clot Retention - A Simple New Method of Evacuation with Out Toomey's or Ellick's: A Clinical Study

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Abstract

Background: The purpose of this clinical study was to assess whether our new method of clot evacuation is useful and better compared to conventional methods clot retention in the urinary bladder is a most common problem in surgical and non-surgical cases. Based our experience of 122 cases managed in 26 years. We discuss some guide lines which make this a safer and easier to perform.

Materials and Methods: During the period of June 1990 to June 2015, 122 cases of clot retention were treated. The non-surgical causes are upper tract bleeding, drug-induced bleeding, post-traumatic bleeding, and hemato-chyluria. The Surgical causes are the most common is post transurethral resection of the prostate bleeding.

Results: On reviewing the cases 115 males and 7 cases for females, it was found this method very simply and does not require any evacuator or syringe. This method easily adoptable and acceptable and no training are required.

Conclusion: Clot retention in the urinary bladder is the most common problem in surgical and non-surgical cases. Our technique of simple Venky's Suction and Nelton's catheter will help without any extra expenditure.

Key words: Clot evacuation, Clot retention, Hemorrhage, Prostate

INTRODUCTION

Hematuria is the most common post-operative unavoidable complication after transurethral surgery on the prostate and carcinoma bladder. Most men who have undergone such procedures have hematuria and clot formation in the post-operative period or on discharge from hospital are at risk of clot retention is a well-known problem.[1] We could find no previous reports on studies of methods for evacuation of formed clots new or old. We have not included the investigations for the duration of gross hematuria after these operations. Similarly, despite the frequent mention of clot retention in this reports.[2-5] None specifically mentioned methods of evacuation of this complication. We, therefore, present our simplified method of clot evacuation.

Clot retention in the urinary bladder is the most common problem in surgical and non-surgical cases all over the world. There are a lot of methods described, but the method which we adopt is simple and easy to follow.

MATERIALS AND METHODS

During the period of June 1990 to June 2015, 122 cases of clot retention were treated. The non-surgical causes are upper tract bleeding, drug-induced bleeding, post-traumatic bleeding, and hemato-chyluria. The surgical causes are the most common is post transurethral resection of the prostate (TURP) bleeding.

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Operative Technique

The patients were kept in lithotomy position in operation theatre (Figures 1 and 2). Commonly local and occasionally spinal and rarely general anesthesia was used.

24F resectoscope sheath and occasionally 21F urethrotome sheath were used. Regularly, Toomey Syringe or Ellick Evacuator is used to remove/evacuate the clots from the bladder. Sterile water used for bladder wash and clot evacuation (Figures 3 and 4).

We have devised using simple Venky's suction apparatus with medium pressure and 16F nelatons catheter with tip cut up to 1 cm is attached to the suction pipe, and it is introduced through 24F resectoscope sheath, and it simply evacuates the clots without any injury to the bladder and without causing any trauma. Per abdominally, we can palpate/feel the bladder being emptied. We can do a cystoscopy to verify for any residual clots. This is a very simple method and the old and hard clots also can be removed.

The individual cases of etiology can be managed accordingly.

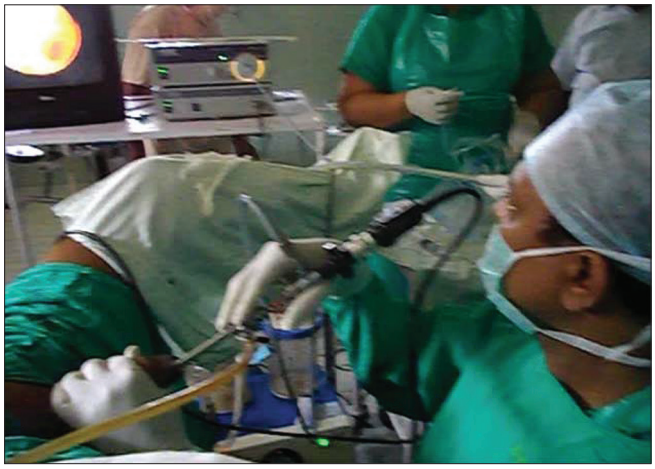


Figure 1: Video cystoscope in position

Figure 2: Nel cath with suction tube *in situ*

RESULTS

The main result is equal in all cases, i.e., evacuation is complete in all cases. The incident of cases of clot retention in post TURP are day 1 are 6 cases, 2nd day 88, 3rd day 7 cases, 7th day 5 cases, and at 1 month one case. In transurethral resection of a bladder tumor, 11 cases had clot retention in day 1. Others include hemoto-chyluria, upper tract bleeding, and post radiotherapy carcinoma cervix (Table 1 and Graph 1).

Table 1: Presentation of clot retention

Number of days	TURP	TURBT	Others
Day 1	6	11	4
Day 2	88		
Day 3	7		
Day 7	5		
Day 30	1		

TURP: Transurethral resection of the prostate, TURBT: Transurethral resection of a bladder tumor

Figure 3: Clots in suction tube

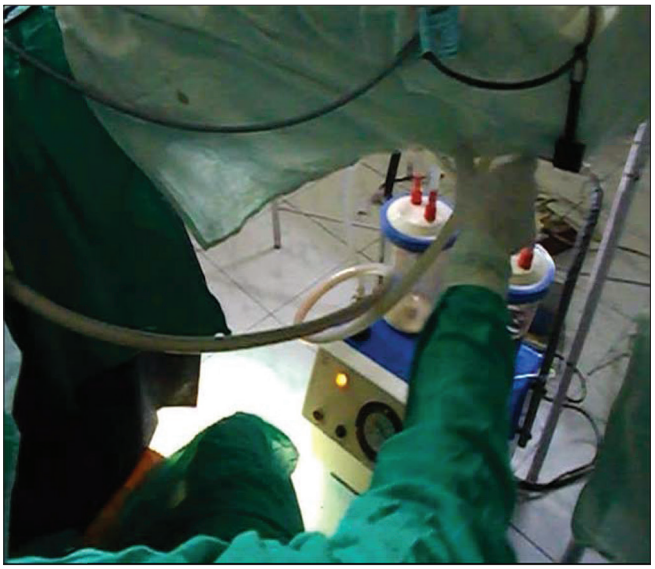
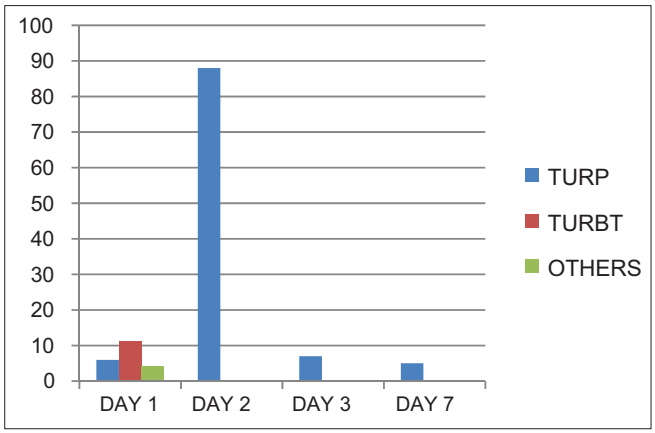


Figure 4: Clots being collected in suction apparatus



Graph 1: Incidence of clot retention day

DISCUSSION

Using Toomey's glass or plastic syringe requires lot of stress and power to remove clots. By using Ellick's evacuator sometimes, it may be difficult to evacuate old clots.

Post-operative bleeding can be secondary to inadequate control of bleeding during the intra operative period it can also occur with increased activity of the patient (i.e., straining with a bowel movement). Therefore, we recommend a stool softener to reduce straining should the patient continue to bleed, we recommend returning into the operating room were clots can be was from the bladder. With the removal of the clot, usually the site of bleeding is not apparent. The patient usually does well with complete evacuation of the clots in the bladder and prostatic fossa.[6-8] Occasionally, a patient will have persistent bleeding, even though cystoscopy was done, no bleeding point was found, and no blood dyscrasia was identified. Significantly higher intra operative bleeding rates were associated with glands weighing more than 45 g and resection times longer than 90 min.[9-12]

Clot retention in the urinary bladder is the most common problem in surgical and nonsurgical cases. Our technique of simple Venky's Suction and Nelton's catheter will help without any extra expenditure. It does not require any special expertise to learn this method.

CONCLUSION

Clot retention once occurs has to be dealt on an emergency basis. Most of the time blood transfusion is required. Each individual case has to be handled according to its severity. Compared to other methods this method is ready to use. The available armamentarium is sufficient to handle this emergency condition in the operation theater.

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