

Direct vision internal urethrotomy in 459 urethral stricture patients at Mulago Hospital, Kampala.

Karimbaev K MD, Consultant urologist,
Kaggwa S MMed (Surg), Senior lecturer,
Kisalu M. MD, Consultant urologist,
Urology Unit, Department of Surgery,
Mulago Hospital, Kampala, Uganda.

Correspondence to: Dr. Sam Kaggwa, Dept. of Surgery, Makerere University, Box 7072, Kampala, UGANDA

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Four hundred and fifty nine patients seen with simple urethral strictures between 1990 and 1998 underwent direct vision urethrotomy. The procedure was successful in 441 patients and failed in only 18 patients. Postoperative complications included fever in 31 patients, urethral bleeding in 14 and epididymitis in 17 patients. The average hospital stay for patients who did not develop complications was 3 days. In conclusion, direct vision internal urethrotomy can be used to treat simple urethral strictures. It is an easy and short procedure and only associated with minor complications.

Introduction

The choice of the most appropriate management of urethral strictures should take into account a number of factors including the:

- The aetiology,
- The thickness and length of the stricture,
- The associated urethral pathology e.g. fistulae, abscesses and calculi,
- The hospital stay and morbidity related to the treatment and
- The risk of recurrence.

The first three factors are predictors of recurrence after surgery. Emphasis is usually placed on minimizing or preventing recurrence of the stricture when selecting the treatment option. The choices include bouginage, internal urethrotomy and urethroplasty. However, in a setting with limited operating time and resources and a long waiting list, the short-term goal of treatment at a low cost sometimes overrides the long-term aims of minimizing recurrence. Endoscopic surgery for stricture has been shown to reduce morbidity, hospital stay and loss of work among the patients^{1,2}.

The aim of this study was to evaluate direct vision urethrotomy short-term outcome among patients with urethral stricture at Mulago Hospital in Kampala, Uganda.

Patients and Methods

Between 1990 and 1998, 459 patients admitted at Mulago Hospital underwent direct vision urethrotomy for their urethral strictures. Their ages ranged between 25-70 years. Four hundred and eighteen (91.1%) had post-inflammatory urethral strictures while in 41 (8.9%), strictures

followed TURP. Preoperatively, all patients were evaluated with cystourethrography. In 422 cases (91.9%), the strictures were short tunnel while the rest (8.1%) were multiple ring strictures. Under direct urethroscopic vision, a 5F whistle tube urethral catheter was passed through the scar fissure at 12 o'clock. A two-way Foley's catheter 16F size was passed and left in place for two weeks.

Postoperatively, all patients received a five-day course of injection gentamycin 80mg twice daily. The patients were followed up until the urethral catheter was removed.

Results

The procedure was successful in 441 patients. It was abandoned in 18 patients due to extravasation of irrigation fluid. Some patients who had successful procedure developed other complications as shown in the table below. Extravasation of urine was the commonest postoperative complication (Table 1).

Table 1: Distribution of complications

Complication	No. of patients	%
Extravasation of urine	18	2.2
Urethral bleeding	14	3.2
Severe haemorrhage	1	0.25
Fever	31	6.7
Epididymitis	17	3.9

The average hospital stay for those patients that did not develop any complication was 3 days.

Discussion

In this series direct vision urethrotomy (DVU) was regarded a successful procedure when the stricture was incised at 12 o'clock and a 2-way Foley's catheter passed and left indwelling in the bladder. On the other hand, it was rated as a

failure either when the stricture could not be incised or when the procedure was abandoned due to extravasation of irrigation fluid. These particular strictures were too thick for urethral catheter guide to go through. Therefore incisions in the stricture were made blindly leading to creation of false passages that resulted into extravasation. This implies that preoperative recognition of strictures unsuitable for internal urethrotomy should be encouraged and such strictures should be treated by urethroplasty¹. One patient developed severe urethral bleeding caused by incision through the stricture that opened the corpus carvenosum. The bleeding was controlled through an external urethrotomy and repair of the rent in the corpus carvenosa. Incision through the strictures should always stop short of opening the corpora carvenosa in order to prevent severe urethral bleeding. Otherwise the mild urethral bleeding from the incision of stricture alone stopped spontaneously after a few days assisted by the tamponade effect of the indwelling urethral catheter.

In addition to being cheap, direct vision urethrotomy is fast to perform. The commonest complications were fever (6.7%) epididymitis 3.9% and urethral bleeding. The overall morbidity was 16.2% which was comparable with that recorded by Benchekroun et al³. In this study, the patients were followed up for only two weeks. Another study with a longer follow-up is recommended to determine to recurrence rate of stricture after internal urethrotomy.

References:

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