Open Prostatectomy for Huge Prostates: Our Experience in a Developing Country

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Abstract

Background: Benign prostatic enlargement, the most common cause of lower urinary tract obstruction in elderly men, is commonly associated with Lower Urinary Tract Symptoms (LUTS). Open prostatectomy is considered the operative treatment of choice. The aim of this study was to review our ten-year experience with open prostatectomy for huge prostates.

Patient and methods: We retrospectively reviewed all patients who had open prostatectomy in University of Maiduguri Teaching Hospital from January 2001-December 2010, whose prostates weighed 200 g or more.

Results: Twenty-nine patients aged 60-97 years with a mean age of 76.3 ± 8.9 years were analyzed. The age group 80-89 years accounted for highest number of patients. All patients presented with lower urinary tract symptoms of frequency, poor urinary stream, and difficulty in passing urine, urgency/urge-incontinence, nocturia, and hesitancy. Others were incomplete bladder emptying, post-micturition dribbling, and overflow incontinence. Complications of bladder outlet obstruction at presentation were acute urinary retention, renal impairment, stones and haemorrhoids. Intercurrent medical conditions were mainly hypertension and diabetes.

Conclusion: Open prostatectomy is the best option for patients with huge prostates, especially when associated with complications in elderly patients with intercurrent medical conditions.

Keywords: Open prostatectomy; Huge prostates; Presentation; Management

Introduction

Benign prostatic enlargement is the most common cause of lower urinary tract obstruction in elderly men. This enlargement is commonly associated with Lower Urinary Tract Symptoms (LUTS). The size of the prostate is not directly proportional to the severity of symptoms. Patients present with clinical symptoms as the disease progresses. In developed countries where most patients present early with minimal symptoms and less complications and smaller-size prostates, drug therapy, or minimally invasive techniques like needle ablation, LASER and TURP [1-4], is more appropriate treatment than open prostatectomy. In the developing world, where there is ignorance and lack of access to health facilities, patients present late with complications of bladder outlet obstruction (diverticulae, stones, impaired renal function etc) and large prostates all of which are indications for open prostatectomy [5]. This group of patients are elderly with inter-current medical conditions that are best treated by open surgery [6]. The aim of this study was to review our ten-year experience with open prostatectomy for huge prostates (for the purpose of this study, removed prostate weighing 200 g or more) in a global era of minimally invasive techniques.

Patients and Methods

All patients who underwent open prostatectomy for BPH at the UMTH between January 2001 and December 2010, whose prostate specimen weighed 200 g or more, were retrospectively reviewed. Details of their bio data, clinical features, investigations, operative treatment, histology reports, postoperative complications and other outcomes of surgery were analyzed using SPSS Version 16. The diagnosis of BPH was made based on clinical assessment which included digital rectal examination (DRE), abdomino-pelvic ultrasound scan. Additional tests like PSA and prostatic biopsy were done based on clinical suspicion of malignancy and when confirmed were excluded from the study. Patients gave informed written consent. Clearance was obtained from the hospital Medical and Ethics Committee. All patients had open prostatectomy after resuscitation and continuous catheter drainage were necessary to ensure optimal renal function (based on blood chemistry), and treating any urinary tract infection based on culture sensitivity. Preoperative blood transfusion was given to those that presented with anaemia. All patients had either spinal or general anaesthesia with prophylactic antibiotics (ceftriaxone and metronidazole). Techniques of prostatectomy were either transversical with haemostatic Malament stitch, or retropubic with haemostatic posterolateral suture.

Results

A total of 32 patients with huge prostates were found in the records. Five were excluded from the study for incomplete data. Patients’ ages ranged from 60-97 years with a mean of 76.3 ± 8.9 years. The age group 80-89 years accounted for the highest number of patients (11 (37.93%)). Table 1. All patients presented with lower urinary tract symptoms of frequency in 26 (89.66%), poor urinary stream in 24 (82.76%), difficulty in passing urine, urgency/urge-incontinence in 21 (72.41%), nocturia in 16 (55.17%), and hesitancy in 13 (44.83%). Others were incomplete bladder emptying in 11 (37.93%), post-micturition dribbling in...
Over the last three decades there has been progressive departure from the traditional open prostatectomy to minimally invasive and robotic techniques for the treatment of BPH. However, these modern techniques require facilities, and a learning curve which are rarely found in developing countries. In such countries open prostatectomy is the main stay. Among this minimally invasive techniques is holmium laser enucleation of the prostate (HoLEP) which has been shown in two randomized trials to have similar results to open prostatectomy with regard to IPPS score [7,8]. In these studies patients who underwent HoLEP had much shorter length of catheterization, lower risk of bleeding, lower transfusion rates, shorter recovery rates and shorter hospital stays. These entire parameters sums up to a safer profile for HoLEP but in parts of the world where health budgets are low and where even open prostatectomy can barely be done HoLEP is almost out of the question at this time. Indications still exist even in developed countries for open prostatectomy, which includes large prostates, complications like bladder stones and diverticulae, and intercurrent medical conditions e.g. diabetes and hypertension. Opinions differ among clinicians over what constitutes a Giant Prostate. The Japanese consider 200 g and above as giant prostates while others consider 500 g or more [9,10]. This study coined the term huge prostate for glands of 200 g or more. The mean age of 76.3 years is higher than was found in a similar BPH study [11], this is in keeping with late presentation. The clinical features of BPH are similar in other studies, however complications at presentation were in sharp contrast to what is obtainable in developed countries where recurrent urinary tract infection predominates [11,12]. Huge prostates, diverticulae, stones, and impaired renal function; all features of late presentation however complications at presentation were in sharp contrast to what is obtainable in developed countries where recurrent urinary tract infection predominates [11,12]. Huge prostates, diverticulae, stones, and impaired renal function; all features of late presentation.
Open prostatectomy still occupies a prime place in the treatment of BPH, especially in large prostates presenting late with complications in patients with intercurrent medical conditions. It is safe, cost effective with acceptable morbidity.

Conclusion

Open prostatectomy still occupies a prime place in the treatment of BPH, especially in large prostates presenting late with complications in patients with intercurrent medical conditions. It is safe, cost effective with acceptable morbidity.

References


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