

Short Report

Endourology in a Nigerian Tertiary Hospital – current level of practice and challenges

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Abstract

Background: Endourology is rapidly advancing in developed countries. However, the level of practice in public tertiary hospitals in developing countries is abysmally low.

Objective: To review the current practice of endourology in a Nigerian public tertiary hospital and discuss the challenges faced during the study period.

Setting: This review was done at the urology unit of the Obafemi Awolowo University Teaching Hospitals Complex [OAUTHC], Ile-Ife, Nigeria.

Materials and Methods: A retrospective review of medical notes of all patients who have had diagnostic and therapeutic endourological procedure in our practice between June 2002 and May 2004 was carried out

Results: Forty nine medical notes were available for review. A total of 51 procedures were carried out, representing twenty percent of the total urological procedures done by the unit during the study period. The commonest indication for an endourological procedure was bladder outlet obstruction. The commonest procedure performed was urethrocystoscopy. There was one complication and one failed procedure.

Conclusion: Although endourological applications have many advantages over open urological procedures, endourological practice is low due to lack of equipment personnel and funding. Advances in endourological practice are desired and this will require improvement in infrastructure, training of personnel and a whole reorientation in our choices of the care we give our patients.

Key words: Endourology, scope, challenges

Introduction

Endourologic practice is advancing rapidly in most developed countries of the world. Since the invention of the solid rod-lens system and the fibre optic light source by H.H. Hopkins in 1959, the level of practice has increased from simple diagnostic procedures to complex therapeutic applications in the upper and lower urinary tracts^{1,2,3}. Advances in new imaging

techniques in ultrasonography, Computerized Tomography, Magnetic Resonance Imaging and radionuclide studies, have not replaced direct visualization of the urinary tract in their natural gleam. At the moment, many open surgical procedures of the upper and lower urinary tracts can be safely performed by luminal and extra-luminal

endoscopy with minimal complications¹. However endourologic practice in public hospitals in developing countries is still regrettably low, due to lack of equipment, inadequate number of trained personnel and poor funding⁴.

We reviewed experience with Endourologic practice at the urology unit, OAUTHC, Ile-Ife, to highlight the scope of practice and the challenges faced during the study period and to speculate the way forward. **Materials and Method** Retrospective review of medical notes of all patients who have had diagnostic and therapeutic endourological procedures between June 2002 and May 2004 was done. Information regarding age, sex, type of procedures indications, complications and the challenges faced during the procedures were extracted from the case notes and analysed. **Results** Medical notes of 49 patients were available for review. 51 procedures were performed on the 49 patients, representing 20% of the total urological workload during the period. There were 44 males and 5 females. The commonest indication for the endourological procedure was bladder outlet obstruction (69%) and (12%) were for strictures; Bladder mass was 10% and; Haematuria alone was 4%; Others were; Ambiguous genitalia, recurrent UTI and vesico-vaginal fistula. The commonest procedure was urethroscopy 86%; Urethroscopy only 10%; Genitoscopy 4%. Additional therapeutic and diagnostic procedures performed were; TURP; Bladder biopsy; retrograde pyelography; Ureteric stent removal and a dye test. Endoscopic findings were enlarged prostate gland 60%; Urethral stricture 18%; Bladder tumour 10%; Posterior urethral valves 4%. Other findings were; bladder diverticulum, sacculations, trabeculations, cystitis, blood clot and vesical sandy patches. 49 of the procedures recorded no complications, 1 had clot retention following a diagnostic cystoscopy, due to bleeding middle lobe of the prostate. There was a failed procedure at retrograde pyelography when it was not possible to intubate the ureteric orifices

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Discussion The level of endourological practice is low representing 20% of the total urological procedures done by the unit during the period. The commonest indication for an endourological procedure was diagnosis of bladder outlet obstruction. Prostatic enlargement constitute the bulk of the patient treated 63%. In the review of the spectrum of urologic diseases in West Africa by Mbibu, prostatic enlargement was the most commonly encountered urological problem⁴. A preoperative urethroscopy enabled us to exclude co-existing urethral stricture, bladder tumour and bladder stone. Benign prostate was treated by TURP which we believe is still first choice in the treatment of the suitable, symptomatic BPH and cancer of the prostate.^{2,5}.

Urethral stricture [20%] is second to prostate gland enlargement as the indication for an endourological procedure. Diagnosis and the added advantage of localization facilitated appropriate choice of treatment. Cystoscopy with biopsy was done for bladder tumours. They were all found to be advanced and further endoscopic applications were not indicated. There were two children with posterior urethral valves but not avulsed endoscopically due to lack of the child scope. Urethroscopy was valuable in the evaluation of patients with haematuria. Apart from the diagnosis and biopsy of lesions in the bladder, bleeding from the upper urinary tract was detected from one ureteric orifice in one patient. In Khartoum, 26% of cystoscopy was for diagnosis in the evaluation of patients with haematuria¹⁰. Paediatric panendoscopy was done in the assessment of the lower genital tracts in the two children with ambiguous genitalia as part of assessment before assignment of gender in the child. There were some complications following the procedures during the time of perfection of skills. Injury to the middle lobe of an enlarged prostate was a source of life threatening bleeding at cystoscopy, and resort was to open surgery. Our equipments are poorly maintained by few and inexperienced technicians and their lifespan is usually shortened. Several accessories were not available to do satisfactory manipulations with the

endoscopes and sometime we try to improvise to unsafe limits.

Conclusion

Endourology is advanced in the developed world but this fascinating branch of urology is poorly developed in public hospitals in Nigeria. This desired advances will require improved funding, training of personnel and procurement of equipments by the government, non-governmental organizations and wealthy private citizens. A lot of money could be saved from seeking treatment by rich individuals.

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