

Urological Endoscopy: Results of the First 15 Months, in Kara (Togo)

Komi Hola Sikpa^{1*}, Gnimdou Botcho², Messan Semefa Agbedey³, Essodina Padja³, Essomindelou Leloua³, Kossi Edem Gueouguede¹, Pwerew Rodolphe Plante¹, Edoe Viyome Sewa³, Kodjo Kevin Tengue³, Matchonna Tchilabalo Kpatcha¹

¹Centre Hospitalier Universitaire Kara, Kara, Togo

²Centre Hospitalier Regional Sokodé, Sokodé, Togo

³Centre Hospitalier Universitaire Sylvanus Olympica, Lomé, Togo

Email: *khsikpa@outlook.com

How to cite this paper: Sikpa, K.H., Botcho, G., Agbedey, M.S., Padja, E., Leloua, E., Gueouguede, K.E., Plante, P.R., Sewa, E.V., Tengue, K.K. and Kpatcha, M.T. (2022) Urological Endoscopy: Results of the First 15 Months, in Kara (Togo). *Open Journal of Urology*, 12, 492-498.

<https://doi.org/10.4236/oju.2022.129048>

Received: August 8, 2022

Accepted: September 27, 2022

Published: September 30, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Background: The urology department of the Teaching Hospital of Kara is the 2nd urology department in Togo, Kara being a semi-urban town located 400 km from Lomé the capital. While for a long time only open surgery was used, the acquisition of urological endoscopic equipment in February 2021, has revolutionized the urological management of patients. **Objective:** Report the results of the first 15 months of urological endoscopy practice at the Kara Teaching Hospital, identify the particularities, announce the prospects. **Patients and Methods.** This was a retrospective and descriptive study, which took place in the urology department of the Kara Teaching Hospital, from February 2021 to April 2022, *i.e.* a period of 15 months. The register of operative reports and patient records were used for data collection. The following parameters were studied: age, sex, diagnosis, indication, diagnostic or therapeutic nature of the procedure, and results. EPI INFO 7.2.4.0 software was used for data analysis. **Results:** A total of 102 urological procedures (endoscopic and non-endoscopic) were performed during the study period; of the 102 interventions, 62 were endoscopic urological interventions, *i.e.*, 60.7% of the interventions. The average age of patients treated was 55.5 years (± 16.4) with extremes ranging from 28 to 87 years. Men accounted for 84% of patients treated. Prostatic hypertrophy was the most common urological pathology in our study, requiring endoscopic intervention in 40% of cases. Transurethral resection of the prostate was the most performed endoscopic procedure in our study with 43.5% of cases. The various endoscopic interventions resulted in success in 96.7% of cases. **Conclusion:** Urology nowadays cannot be done without endoscopy. At the Kara Teaching Hospital, the results are already promising after less than 24 months of endoscopic practice

in urology. Advocacy must be made to political decision-makers, so that the situation is even better, for the good of both urologists and patients.

Keywords

Urological Endoscopy, Results, Kara, Togo

1. Introduction

The advent of endoscopic techniques has revolutionized the management of urological pathologies, both diagnostically and therapeutically in the world. In our sub-Saharan countries, urological pathologies were treated by open surgery, for a very long time, with high morbidity and mortality and postoperative hospital stay [1]. While hospitals in African capitals are equipped with endoscopic equipment in order to offer the population better care [2] [3], hospitals in other distant cities often lag behind. In Kara, a semi-urban town, located 400 km north of Lomé, the capital of Togo, the urology department of the Kara teaching Hospital was equipped with endoscopic equipment at the beginning of 2021. Before this date, urological pathologies were treated only by open surgery, with high morbidity [1]; endoscopic techniques had never been used. The aim of our study was to report the results of the first 15 months of urological endoscopy practice at the Kara Teaching Hospital.

2. Patients and Methods

This was a retrospective and descriptive study, which took place in the urology department of the Kara Teaching Hospital, from February 2021 to April 2022, *i.e.* a period of 15 months. The register of operative reports and patient records were used for data collection, including any patient who underwent an endoscopic urological intervention in the urology department of kara teaching hospital, and whose file was usable. The following parameters were studied: age, sex, diagnosis, indication, diagnostic or therapeutic nature of the procedure, and results.

Data processing was done by Word, Excel and the EPI Info statistical software.

3. Results

A total of 102 urological procedures (endoscopic and non-endoscopic) were performed during the study period; of the 102 interventions, 62 were endoscopic urological interventions, *i.e.* 60.7% of the interventions. The average age of operated was 55.5 years (± 16.4) with extremes ranging from 28 to 87 years. **Figure 1** shows the number of endoscopic procedures performed per year. **Figure 2** shows the distribution of operated patients according to sex. In our study, 40.3% of endoscopic interventions had been performed for prostatic hypertrophy, followed by interventions for the removal of ureteral endoprostheses in 17.7% of cases..

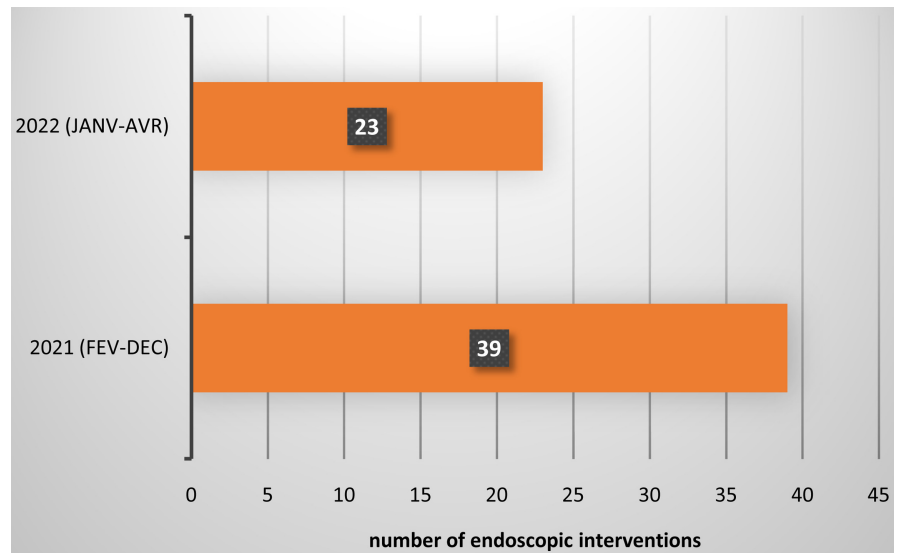


Figure 1. Distribution of endoscopic procedures by year.

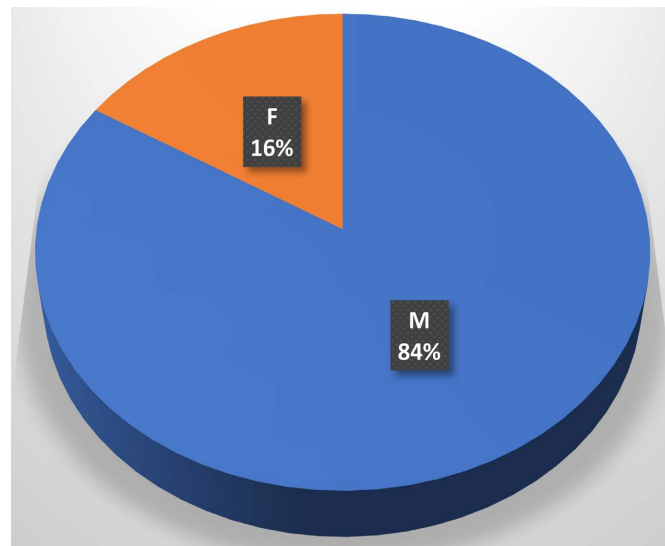


Figure 2. Distribution of patients according to sex. F: Feminine; M: Male.

Bladder tumours, and ureteral stones come next, with 9.6% of cases each. **Table 1** shows the various pathologies diagnosed and which required endoscopic urologic intervention. TURP is the most used endoscopic intervention in our study with 43.5% of cases followed by the removal of JJ probes in 17.4% of cases. **Table 2** shows the various indications requiring endoscopic intervention. The endoscopic intervention was performed for diagnostic purposes in 17.4% (11) of cases, and for therapeutic purposes in 82.2% (51) of cases. The various endoscopic interventions resulted in success in 96.7% of cases. About the patients with whom we had failures, it was about two patients who had a lumbar lithiasis, and in whom we had proposed a ureteroscopy. During their treatment, the stone moved up into the kidney; not having a flexible ureteroscope, we had just put in place a JJ probe.

Table 1. Pathologies requiring endoscopic intervention.

Diagnostic	Frequency	Percent
Ureterohydronephrosis by tumor compression	1	1.6
Cystitis	2	3.2
presence of ureteral endoprosthesis	11	17.7
Hématuria	1	1.6
Prostatic hypertrophy	25	40.3
Prostatic hypertrophy + Inguinal hernia	1	1.6
Prostatic Hypertrophy + Urethral Stenosis	2	3.2
Ureteral lithiasis	6	9.6
Acute retention of urine byclots	1	1.6
Urethral stricture	4	6.4
Bladder tumor	6	9.6
Ureterocele	1	1.6
Total	62	100

Table 2. Indications requiring an endoscopic intervention.

Indications	Fréquence	Pourcentage
JJ catheter removal	11	17.4
Endoscopic decaillotage + hemostasis	1	1.6
Bilateral JJ catheter ascent	3	4.8
Ureterocele resection	1	1.6
TURP	27	43.5
TURBT	4	6.4
Urethrotomy	3	4.8
Urethrotomy + TURP	1	1.6
Urethrotomy + TURP + Hydrocele	1	1.6
Rigidureteroscopy	4	6.4
Urethrocystoscopy	6	9.6
Total	62	100

4. Discussion

Endoscopy in urology consists of using minimally invasive techniques to explore and treat certain pathologies of the urinary system using optical equipment called an endoscope [2]. Endoscopic procedures are the most performed procedures in urology in the West, with a rate of around 80% [4] [5]. In our sub-Saharan countries, this rate barely exceeds 50% [6] [7] [8]. Difficulties, especially financial, would prevent the acquisition of adequate equipment for carry-

ing out endoscopic interventions. However, at home in Kara, nearly 60% of our interventions were endoscopic in 15 months of endoscopic practice. This difference with our sub-Saharan colleagues could be explained by the fact that the urology department of the Kara Teaching Hospital had endoscopic equipment from the outset, allowing not only diagnostic exploration, but also the therapeutic management of pathologies. Many hospitals in black Africa, when acquiring their endoscopic equipment, only had what was necessary for endoscopic exploration (urethroscopy, removal of the JJ probe, etc.). It was only afterwards that equipment was acquired to perform prostate or bladder resections, or even equipment to allow the management of urinary stones by rigid or flexible ureteroscopy [9].

We note in our study that transurethral resection of the prostate (TURP), was the most performed endoscopic intervention in 43.5% of cases. TURP is considered the gold standard in the surgical management of benign prostatic hyperplasia, with a significant reduction in morbidity and mortality and postoperative stay [10] [11]. Halidou in Niger had found at 0.96% in 2022 [2], and Kambou, 8% in 2006 in Burkina Faso [12]. We note that the figures differ depending on the year and the country. Halidou had noticed in his study that few hospitals had a resector; which explained the low performance rate of TURP; as for Kambou, its figures dating from 2006, it is very likely that the rate of realization of TURP is higher today. Prostatic pathology, being also the most encountered in a urology department, it is easy to see that TURP is the most performed intervention in our study. This rate would be even higher in our study if the available resection material allowed TURP to be performed for more than one hour. This constraint forces us to choose only patients whose prostate volume did not exceed 60 to 80 cc for TURP. Patients with a larger prostate volume benefited from a prostatic adenectomy via the upper route. In the future, we plan to acquire equipment allowing prostatic resection for more than an hour.

Rigid ureteroscopy, for the management of ureteral stones, represented 6.4% of our endoscopic procedures. Preferred to open surgery, it has the advantage of considerably reducing the length of hospital stay. The rate of realization of this endoscopic technique is low in our study, because the diagnosis of ureteral stones is not often made in the department. It should also be noted that some patients treated for renal lithiasis had undergone open surgery, since we do not yet have a flexible ureteroscope. We agree with Niang [13] that the routine practice of ureteroscopy in sub-Saharan Africa remains a challenge for African urologists. When we know that the type of diet plays an important role in the occurrence of urolithiasis on the one hand, and that our diet is more and more modeled on the Western model on the other hand, it is inevitable that we will be increasingly faced with cases of urinary lithiasis. We must therefore fight to have the complete equipment necessary for the management of urolithiasis by endoscopic route.

The success rate of our endoscopic procedures was 96.7%. Halidou had also found a success rate of around 100% [2]. These figures prove that, despite the

recent nature of the acquisition of endoscopic equipment, in our African health structures, there are already urologists trained in its use; most acquired this skill during their specialization in certain countries of the sub-region, where urological endoscopy is already highly developed; or during internships in Western hospitals. It would be a shame if, after having acquired such skills, often at the cost of many sacrifices, to lose them for lack of an adequate technical platform; It is therefore urgent that, on the political level, the necessary is done, in order to remedy this situation, which does not help either the urologist who will lose his skills, nor the population who will not benefit from the best care.

5. Conclusion

Urology nowadays cannot be done without endoscopy. At the Kara Teaching Hospital, the results are already promising after less than 24 months of endoscopic practice in urology, with a technology platform that was still incomplete until then. The financial cost of acquiring such equipment prevents many sub-Saharan urologists from being comfortable in their daily desire to give the best possible care to their patients. Advocacy must be made for political decision-makers, so that the situation improves, for the good of both urologists and patients.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Botcho, G., Kpatcha, T.M., Tengue, K., Dossouvi, T., Sewa, E.V., Simlawo, K., Leloua, E., Sikpa, K.H., Anoukoum, T., Dosseh, E.D. (2015) Morbidité et mortalité après adénomectomies prostatiques par voie transvésicale au CHU Kara (Togo). *African Journal of Urology*, **24**, 353-358. <https://doi.org/10.1016/j.afju.2018.01.008>
- [2] Halidou, M., Kodo, A., Diongolé, H., Zakou, A.R.H., Adamou, H., Doucthi, M., Amadou, S. (2022) Bilan D'activités De 10 Ans De Pratique D'endoscopie Urologique Au Niger: Résultats, Défis Et Perspectives. *European Scientific Journal*, **18**, 228-238. <https://doi.org/10.19044/esj.2022.v18n14p228>
- [3] Mahamat, M.A., Vadandi, V., Allah-Syengar, N., Ahmat, O. and Kally, M. (2020) Expérience de la prise en charge endoscopique du service d'urologie de l'hôpital général de référence nationale (hgrn) de n'djamena, Tchad. *Uro'Andro*, **2**, 45-49.
- [4] Doizi, S., Raynal, G. and Traxer O. (2015) Évolution du traitement chirurgical de la lithiase urinaire sur 30 ans dans un centre hospitalo-universitaire. *Progrès en Urologie*, **25**, 543-548. <https://doi.org/10.1016/j.purol.2015.05.002>
- [5] Spatafora, S., Casarico, A., Fandella, A., Galetti, C., Hurle, R., Mazzini, E., *et al.* (2012) Evidence-Based Guidelines for the Treatment of Lower Urinary Tract Symptoms Related to Uncomplicated Benign Prostatic Hyperplasia in Italy: Updated Summary from AURO.it. *Therapeutic Advances in Urology*, **4**, 279-301. <https://doi.org/10.1177/1756287212463112>
- [6] Eziyi, A.K., Eziyi, J.A.E., Salako, A.A. and Aderounmu, A.O.A. (2010) Early experience with endourology at Ladoke Akintola University of Technology Teaching Hospital, Osogbo. *Nigerian Journal of Clinical Practice*, **13**, 1-8.

- [7] Takure, A.O., Shittu, O.B., Adebayo, S.A., Olaopa, E.O. and Okeke, L.I. (2012) Day Case Endourology in Surgical Outpatient Clinic at Ibadan: A 5 Years Review. *African Journal of Urology*, **18**, 112-117. <https://doi.org/10.1016/j.afju.2012.08.012>
- [8] Diakité, M.L., Berthé, H.J.G., Diallo, M., Kambou, D., Diakité, A., Sangaré, D. and Tembely, A. (2016) La résection endoscopique bipolaire. Expérience du service d'urologie du CHU Point G. *Uro' Andro*, **1**, 264-268.
- [9] Biyani, C.S., Bhatt, J., Taylor, J., Gobeze, A.A., McGrath, J. and MacDonagh, R. (2014) Introducing Endourology to a Developing Country: How to Make it Sustainable. *Journal of Clinical Urology*, **7**, 202-207. <https://doi.org/10.1177/2051415813514971>
- [10] Klotz, F. (2003) L'endoscopie dans les pays en voie de développement. *Acta Endoscopica*, **33**, 756-757. <https://doi.org/10.1007/BF03002617>
- [11] Ndiath, A., Sarr, A., Diaw, E.H.M., Sow, O., Ndiaye, M., Sine, B., *et al.* (2021) Morbi-mortalité de la résection trans-urétrale bipolaire de la prostate au Service d'Urologie-Andrologie de l'Hôpital Aristide Le Dantec de Dakar. *PAMJ Clinical Medicine*, **5**, Article No. 75. <https://doi.org/10.11604/pamj-cm.2021.5.75.27226>
- [12] Kambou, T., Zango, B., Ekoue, F., Traoré, A.C., Bonkougou, B., Ouattara, T. and Sano, D. (2006) Traitement chirurgical de l'hypertrophie bénigne de la prostate au C.H.U. Sanou Souro de Bobo-Dioulasso (Burkina Faso) : Résultats à court et moyen terme—A propos de 190 cas. *Médecine d'Afrique Noire*, **53**, 605-612.
- [13] Niang, L., Pare, A.K., Ndoeye, M., Samassekou, A., Avakoudjo, D.J.G., Agounkpe, M.M., *et al.* (2016) Ureterscopie Retrograde: Expérience de l'Hôpital Général Grand Yoff de Dakar. *African Journal of Urology*, **22**, 110-116. <https://doi.org/10.1016/j.afju.2016.01.002>