

Clinical Presentation, Therapeutic Aspects and Results of Urogenital Prolapse in Yaounde

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Abstract

Introduction: Urogenital prolapse is the descent of one or more elements of the abdominal-pelvic contents into the vaginal cavity. The anterior, middle and posterior anatomical compartments may be involved giving rise to several types of genital prolapse. However, there are various therapeutic modalities ranging from observational procedures to surgery. In Yaounde, urogenital prolapse appears to be a rare clinical entity, and its treatment has not been clearly stated. There is limited data about this subject in our context. Our aim was to study the clinical and therapeutic aspects of urogenital prolapse in Yaounde. **Methods:** We conducted a descriptive cross-sectional study with retrospective data collection at the Yaounde Gynaecological Obstetric and Pediatric Hospital (YGOPH) and the Yaounde Central Hospital (YCH) over a period of 05 months (from February 2022 to June 2022). All women aged ≥ 30 years and all women with documented urogenital prolapse admitted to the maternity and urology departments of these two health facilities were included. Data were collected using a structured questionnaire. Data was analyzed using IBM SPSS (statistical package for social sciences) software version 23.0 and the data were reported as mean, standard deviation, frequencies and percentages. **Results:** A total of 50 patients were recruited; the mean age was 45.8 ± 17 years. The age range was from 21 to 72 years. Majority of the patients were aged more than 55 years (32%). Most of the patients attended primary education (48%). Forty percent of the patients were housewives. The

majority of the patients were from West Cameroon (26%). The most common reason for consultation was pelvic heaviness (54%). The most prevalent clinical sign was cystocele (56%), followed by hysterocele (54%). According to the Baden Walker classification, one-third of the patients were classified as first degree (36%). More than half (58%) of patients had the condition located at the first stage. Surgery was performed in 68% of cases while 48% received medical treatment. The average length of inpatient stay was 7.9 ± 3.7 days and the average length of transurethral catheterization was 3.02 ± 2.9 days. Most patients had a good short-term outcome, and the main postoperative complications were infection (8.8%) and hemorrhage (5.9%). **Conclusion:** Urogenital prolapse is a rare condition in our population. Diagnosis is essentially clinical. Cystocele and hysterocele are the predominant clinical forms. Surgery is the mainstay of treatment. Outcomes are satisfactory.

Keywords

Urogenital Prolapse, Cystocele, Hysterocele, Clinical, Surgery

1. Introduction

Urogenital prolapse is defined as a protrusion of one or more abdomino-pelvic contents in to the vaginal cavity. This is an exclusively female condition that can affect the anterior or posterior vaginal walls, the uterus or the vaginal vault [1] (Figure 1). It is a common condition with a worldwide prevalence ranging from 2.9% to 11.4% [2]. The cumulative incidence over the age of 70 is about 11% [3]. A study in Canada found that urogenital prolapse accounted for 3% of all gynaecological consultations [3]. In Africa, urogenital prolapse is the subject of several under-documented consultations. In Morocco, the prevalence of urogenital

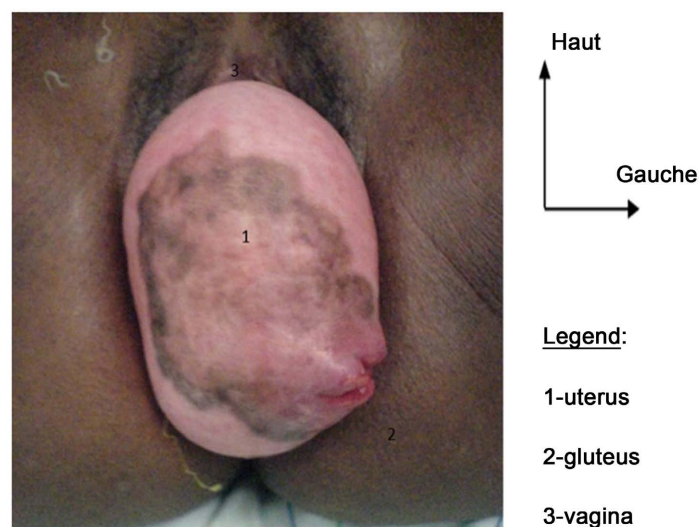


Figure 1. Genital prolapse with signs of chronic irritation (*Source: Urology service YCH*).

prolapse was found to be 30.8% in a population aged between 20 and 59 [4]. An Ethiopian study showed that genital prolapse accounted for 19.9% of all gynaecological operations [5]. In Cameroon, the prevalence of urogenital prolapse is estimated at 10.6% [6]. This condition has now become a real public health problem because of its frequency, cost and major impact on the quality of life with repercussions on urinary, sexual and digestive function [3]. Along with urinary incontinence, it is one of the most frequent reasons for consultation in gynaecology [5]. It is a functional pathology that affects the quality of life of many women, especially the elderly, but does not spare younger patients [6] [7]. To the best of our knowledge, there is a limited data on the clinical and therapeutic aspects of urogenital prolaps in Yaounde. Therefore, the purpose of the study is to describe the clinical presentation, therapeutic aspects and results of urogenital prolapse in Yaounde, Cameroon.

2. Methodology

This was a descriptive cross-sectional study with retrospective data collection carried out at the Yaounde Gynaecological Obstetric and Pediatric Hospital (YGOPH) and the Yaounde Central Hospital (YCH) over a period of 05 months (from February 2022 to June 2022). All women aged ≥ 30 years and all women with documented urogenital prolapse admitted to the maternity and/or urology departments of these two health facilities were included. Data were collected using a pre-designed data sheet with questions organized into three sections: socio-demographic data, clinical signs and therapeutic aspects. The questionnaire was validated and the reliability tested prior to data collection. The information collected was analyzed using IBM SPSS (statistical package for social sciences) software version 23.0 and the data were reported as mean, standard deviation, frequencies and percentages.

3. Results

A total of 6850 records were reviewed and we recorded 56 cases of urogenital prolapse. The overall prevalence was 0.8% (**Figure 2**). The prevalence was 0.6% at the Yaounde Central Hospital and 1.2% at the Yaounde Gynaecological-Obstetric and Paediatric Hospital.

3.1. Description of Socio-Demographic Characteristics

Majority of the patients were aged >55 years (32%). The most common level of education was primary education (48%). Majority of the participants were housewives (40%). Majority of the patients were from the West (26%) (**Table 1**).

3.2. Description of Clinical Characteristics

Pelvic heaviness was the most common reason for consultation (54%) and gynecological history was dominated by menopause (48%). Most patients had multiple gestures and the mean parity was 4.1 ± 1.1 ranging from 0 to 13 (54%) (**Table 2**).

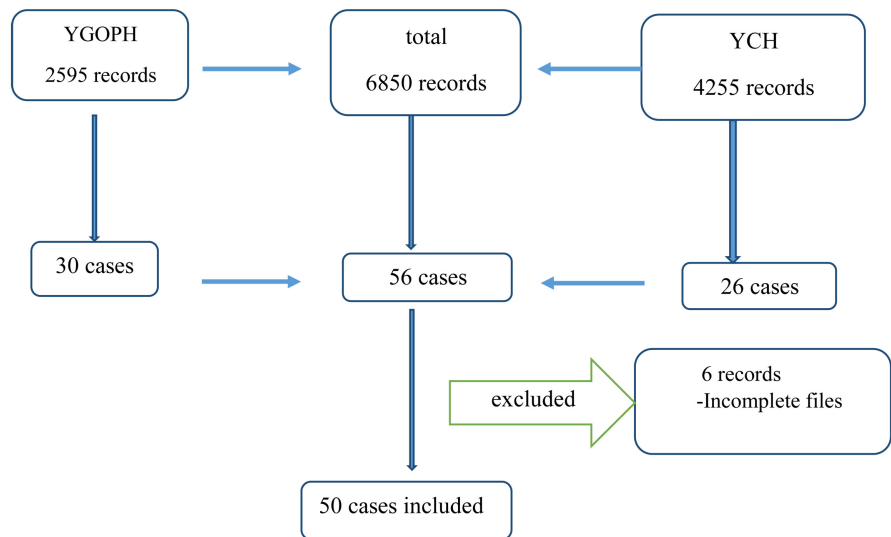


Figure 2. Flowchart of patients with prolapse in recruitment sites.

Table 1. Socio-demographic profile of patients.

Variables	Frequency (N = 50)	Percentage (%)
Age range (in years)		
<25	7	14.0
[25 - 35]	12	24.0
[36 - 45]	7	14.0
[46 - 55]	8	16.0
>55	16	32.0
Level of education		
Primary	24	48.0
Secondary	14	28.0
University	12	24.0
Profession		
Housewife	20	40.0
Business	16	32.0
Student	5	10.0
Civil servant	4	8.0
Private sector	5	10.0
Region of origin		
Center	12	24.0
South	8	16.0
East	1	2.0
West	13	26.0
Littoral	4	8.0
North	10	20.0
Far North	2	4.0

About 20% of patients had undergone caesarean section in the past. Diabetes was common in 30% of the study population. The most common clinical sign was cystocele (56%). Eighteen patients (36%) were classified as first-degree and twenty-nine patients (58%) had an anterior location of the condition (**Table 3**).

Table 2. Reason for consultation and gynaeco-obstetric history.

Variables	Frequency (N = 50)	Percentage (%)
Reason for consultation		
Vulva mass	8	16.0
Organ protusion	10	20.0
Pelvic heaviness	27	54.0
Pelvic pain	3	6.0
Abnormal discharge (bleeding and/or leucorrhoea)	3	6.0
Dyspareunia	2	4.0
stress urinary incontinence	7	14.0
Pollakiuria	14	28.0
Urgency	4	8.0
Dysuria	1	2.0
Hematuria	2	4.0
Painful unriation	2	4.0
Constipation or difficulty in defeacation	3	6.0
Gynaecological and obstetric history		
Menopause	24	48.0
Macrosomia	19	38.0
Perineal tear	12	24.0
Instrumental delivery	10	20.0
Gravidity		
Nulligravid (G0)	1	2.0
Primigravid (G1)	7	14.0
Paucigravid (G2-3)	15	30.0
Multigravid (\geq G4)	27	54.0
Parity		
Nulliparous (P0)	2	4.0
Primiparous (P1)	6	12.0
Pauciparous (P2-3)	17	34.0
Multiparous (\geq P4)	25	50.0

Table 3. Other clinical characteristics.

Variables	frequency (N = 50)	Percentage (%)
Surgical History		
Prolapse repair	1	2.0
Hernia repair	1	2.0
Caesarian sectiob	10	20.0
None	38	76.0
Medical History		
Diabetes	15	30.0
Hypertension	3	6.0
chronic bronchitis	5	10.0
chronic constipation	12	24.0
none	15	30.0
Family history		
uro-genital Prolapse	5	10.0
Clinical signs		
Cystocele	28	56.0
Uretrocele	1	2.0
Hysterocele	27	54.0
Rectocele	7	14.0
Perineal scarring	4	8.0
Stress urinary incontinence	20	40.0
Classification		
First degree	18	36.0
Second degree	16	32.0
Third degree	16	32.0
Localisation		
Anterieur	29	58.0
Middle	27	54.0
Posterior	7	14.0
anterieur and posterior	1	2.0
Anterieur, middle and posterior	6	12.0

3.3. Therapeutic Characteristics

3.3.1. Hospitalisation

The average length of hospital stay was 7.9 ± 3.7 days (**Figure 3**). The mean

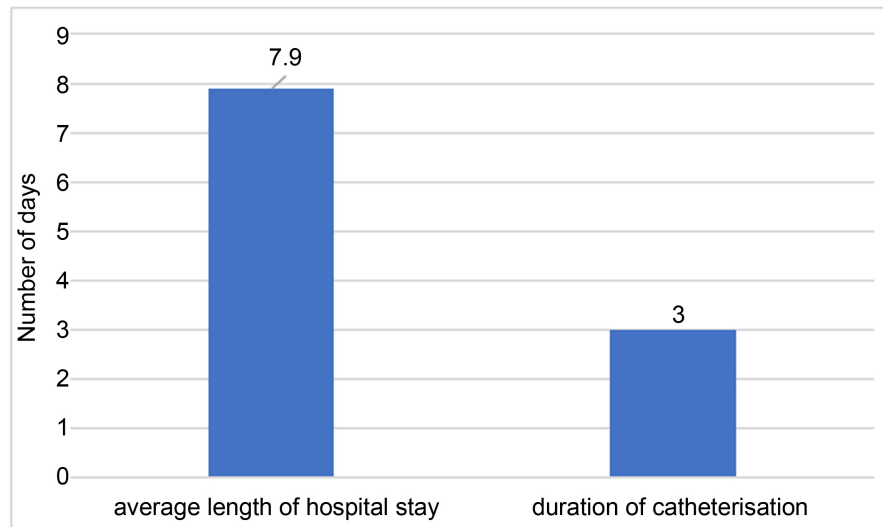


Figure 3. Length of hospitalisation and catheterisation.

duration of the catheterisation was 3.02 ± 2.9 days. The short-term outcome was favourable in 98% of cases and unfavourable in 2%.

3.3.2. Treatment and Complications

Perineal physiotherapy was the most applied medical treatment (66.7%). Surgical treatment was carried out in 34 patients (68%) predominantly anterior colporrhaphy. The most common approach being vaginal approach in 67.6% of cases. The most common surgical technique was the triple perineal operation with vaginal hysterectomy (29.4%). Intra-operative complications were haemorrhage (14.7%) and lower urinary tract injury (5.9%), while infection (8.8%) and haemorrhage were the most common post-operative complications (5.9%) (**Table 4**).

3.3.3. Prognosis

The anatomical and/or functional results and the degree of patient satisfaction were respectively: fair (65.6%), average (50%) and average (53.1%) at 3 months; at 6 months, good (52.2%), good (60.9%) and good (60.9%) and at 12 months, good (47.1%), good (70.6%) and good (70.6%) (**Table 5**).

4. Discussion

4.1. Prevalence

A total of 56 cases of urogenital prolapse were found. This represents 0.8% of our gynaecological consultations. This is similar to the 1.09% found by Coulibaly *et al.* in Bamako, Mali in 2011, but lower than the 12.7% and 5.2% found by Camara *et al.* in Mali in 2022 and De Tairac *et al.* in France in 2013 respectively [8]-[12]. This difference may be attributed to the difference between the study populations and the sample size. The frequency of urogenital prolapse varies from one country to another.

Table 4. Distribution of treatment received and complications.

Variables	Frequency (N = 50)	Percentage (%)
Medical treatment (n = 24)		
Pessary insertion	5	20.8
Estrogene therapy	3	12.5
Perineal physiotherapy	16	66.7
Surgical treatment (n = 34)		
<u>Vaginal approach</u>		
Manchester Shirodkar Sturmdorff technique	5	14.7
Anterior colporrhaphy	5	14.7
Posterior colporrhaphy	2	5.9
Anterior and posterior colporrhaphy	1	2.9
TOP with vaginal hysterectomy	10	29.4
<u>Suprapubic incision</u>		
Promontofixation with exclusion of douglas	9	26.5
Hysterectomy	2	5.9
Intra-operative complications		
Lower urinary tract injury	2	5.9
Hemorrhage	5	14.7
None	27	79.4
Post-operative complications		
Hemorrhage	2	5.9
Infection	3	8.8
Significant perineal oedema + suture breakdown	1	2.9
Phlebitis	1	2.9
None	27	79.4

4.2. Socio-Demographic Characteristics

This condition affects women of all ages. In our series, the youngest woman was 21 years old and the oldest 72 years old. However, the age group most affected were women aged 55 years and above. The mean age was 45.8 ± 17 years. This result is similar to that observed by Gakou *et al.* in Mali in 2021, who had a mean age of 44.7 years, with extremes of 17 and 80 years, with a majority of patients aged 46 [9]. However, our result differs from those of Olsen *et al.* [10], who had a mean age of 61.8 years, and Wetzel *et al.* in Mexico, who found an average age of 55 years [11]. This difference could be explained by our socio-cultural differences, the etiology of the prolapse, the standard of living and the density of our

Table 5. Therapeutic results.

Variable	3 months N = 32 n (%)	6 months N = 23 n (%)	12 months N = 20 n (%)
Anatomical result			
Good	11 (34.4)	12 (52.2)	8 (47.1)
average	21 (65.6)	11 (47.8)	9 (52.9)
failure	0 (0)	0 (0)	0 (0)
Functional outcome			
Good	15 (44.1)	14 (60.9)	12 (70.6)
Average	16 (50)	9 (39.1)	5 (29.4)
failure	1 (3.1)	0 (0)	0 (0)
Patient satisfaction			
good	15 (46.9)	14 (60.9)	12 (70.6)
Average	17 (53.1)	9 (39.1)	5 (29.4)
failure	0 (0)	0 (0)	0 (0)

population.

In our study, about 40% of the study population were housewives. This observation is similar to that made by Camara *et al.* in Mali in 2022, who reported that 62.4% of patients were housewives [12]. The etiology of the urogenital prolapse could be explained by the many strenuous jobs (in the fields, carrying heavy loads, etc.) that African women do on a daily basis.

4.3. Clinical Features

All patients presented with symptoms related to urogenital prolapse. The main reason for consultation in our study was pelvic heaviness (54%). This result is similar to that of Belachkar *et al.* in Morocco in 2016, who found pelvic heaviness to be the main reason for consultation in 50% [13]. On the other hand, in Mali, Coulibaly *et al.* in 2010 found vulvar swelling to be the main complaint in 49.2% of patients. In 2022, Camara *et al.* found a sensation of an intra-vaginal ball to be the main reason for consultation in 94.5% of patients [12] [14].

The most common clinical sign was cystocele in 56% of patients. Gakou *et al.* in Mali in 2021 reported 97.15 cases of cystocele. Thirty-six percent of our patients were at the first degree stage of prolapse, which differs from the predominance of the 3rd degree in 88.6% of cases reported by Camara *et al.* [12]. This could be attributed to the fact that their patients only consulted when the prolapse became very troublesome. The majority of our patients (58%) presented with an anterior stage prolapse, similar to the 95% prevalence of anterior stage prolapse reported by Belachkar *et al.* [13]. Coulibaly *et al.* carried out a cytobacteriological examination of urine in 66.7% of their patients [14]. In our study, 60% of our patients did urine culture and antibiotic sensitivity which were

non-sterile.

4.4. Therapeutic Aspects

The aim of treatment for genital prolapse is to correct the related pelvic static disorders by restoring normal vaginal anatomy and physiology, to prevent recurrence and to avoid complications. Therefore, the attending physician must do everything possible to achieve not only anatomical correction but also restoration and/or conservation of bladder, sexual and fertility functions.

The most common treatment modality in our series was surgical treatment (68%). Vaginal approach was done in about two-thirds of the patients and triple perineal operation with vaginal hysterectomy was the most common surgical technique (29.4%). Our findings were similar to Diouf *et al.* [15]. The vaginal route is the operation of choice for genital prolapse, as it allows the three usual components of prolapse to be treated. This approach is frequently used because of the possibility of being performed under locoregional anaesthesia (spinal anaesthesia), short duration of surgery, reduced length of hospital stay, favourable post-operative period, the absence of parietal complications, less post-operative pain with a low financial cost and the possibility of combining additional perineal procedures if required. This surgical technique also reduces thromboembolic complications (operations with raised legs). The average hospital stay was 7.9 days, which is similar to the 4 days reported by Camara Y *et al.* [12]. Our patients were hospitalised for approximately 3.02 days with a urinary catheter in place, similar to the 2.3 days reported by Coulibaly B *et al.* [14].

4.5. Prognosis

In our study, hemorrhage and urinary tract injury were the two most common intraoperative complications. These findings were similar to those reported by Diouf A.A *et al.* and Coulibaly B *et al.* [14] [15]. However, Gakou A *et al.* reported no intraoperative complications [9]. Two types of post-operative complications were recorded in our series, namely infection (8.8%) and hemorrhage (5.9%). This result is in line with the postoperative complications reported by Camara *et al.* and Diouf AA *et al.*, who found infection (0.4%) and bladder injury (4.9%) respectively. On the other hand, Gakou A *et al.* and Coulibaly B *et al.* had no post-operative complications [9] [14].

We found out that in the 3 months post-operative follow-up, the anatomical result was average in 65.6% of cases; the functional result was average in 50% and the half of the patients were moderately satisfied. This result differs from that of Coulibaly M *et al.* in Bamako, Mali, in 2011, who found 93.1% good anatomical results and 82.7% good functional results [14].

5. Conclusion

We conclude that women above 55 years of age are at risk of having urogenital prolapse. Cystocele is the predominant clinical form. The mainstay of treatment

is surgery. The prognosis was relatively good and the patients' quality of life significantly improved.

Limitation

This study was carried out in one center, but we wish to extend the study to other centers.

Ethical Clearance

Study was approved by institutional ethics committee.

Authors' Contribution

All the authors contributed to the research work. They read and agreed to the final version of the manuscript.

Conflicts of Interest

The authors declare no competing financial or personal interests.

References

- [1] Bader, G. and Koskas, M. (2008) Prolapsus des organes pelviens. Du symptôme à la prise en charge thérapeutique. *EMC - Traité de médecine AKOS*, **11**, 3-1280. [https://doi.org/10.1016/S1634-6939\(08\)49797-1](https://doi.org/10.1016/S1634-6939(08)49797-1)
- [2] Kishawas, S., Tanira, Omar, E. and Begum, K. (2010) Prolapsus génital chez les femmes du groupe d'âge de reproduction dans une communauté rurale de Bangladesh. *Journal of Dhaka Medical College*, **19**, 118-1121. <https://doi.org/10.3329/jdmc.v19i2.7082>
- [3] Lousquy, R., Costa, P., Delmas, V. and Haab, F. (2019) État des lieux de l'épidémiologie des prolapsus génitaux. *Progrès en Urologie*, **19**, 907-915. <https://doi.org/10.1016/j.purol.2009.09.011>
- [4] Olsen, A.L., Smith, V.J., Bergstrom, J.O., Colling, J.C. and Clark, A.L. (1997) Epidemiology of Surgically Managed Pelvic Organ Prolapse and Urinary Incontinence. *Obstetrics & Gynecology*, **89**, 501-506. [https://doi.org/10.1016/S0029-7844\(97\)00058-6](https://doi.org/10.1016/S0029-7844(97)00058-6)
- [5] Baye, M. (1983) Prevalence and Clinical Presentation of Genital Prolapsed in "Maternité principale" Yaoundé. Thèse Médecine, Yaoundé.
- [6] Chiara, G., *et al.* (2020) Pelvic Organ Descent and Symptoms of Pelvic Floor Disorders. *American Journal of Obstetrics and Gynecology*, **193**, 53-57. <https://doi.org/10.1016/j.ajog.2004.12.004>
- [7] Coulibaly, M. (2011) Etude épidémiologique et pris en charge des prolapsus génitaux A la maternité de garnison de Kati. Thèse de médecine, Université de Bamako, Bamako.
- [8] De Tayrac, R., Letouzed, V. and Marès, P. (2013) Evaluation objective des symptômes et information des patientes dans le prolapsus génital. *Journal Medical Libanais*, **61**, 23-35. <https://doi.org/10.12816/0000398>
- [9] Gakou, A. (2021) Prolapsus génital à l'hôpital du Mali, aspects épidémiologiques, cliniques et thérapeutiques. Thèse de médecine, Université de Bamako, Bamako.
- [10] Olsen, A.L., Smith, V.J., Bergstrom, J.O., Colling, J.C. and Clark, A.L. (1997) Epi-

- demiology of Surgically Managed Pelvic Organ Prolapse and Urinary Incontinence. *Obstetrics & Gynecology*, **89**, 51-56. [https://doi.org/10.1016/S0029-7844\(97\)00058-6](https://doi.org/10.1016/S0029-7844(97)00058-6)
- [11] Wetzel, O., Katmeh, S., Plougastel Lucas, M.L. and Bourdon, J. (1995) Traitement des prolapsus génito-urinaires par promontofixation à l'aide d'un matériel prothétique associé à une hystérectomie totale: Complications et résultats à propos d'une série de 55 observations. *Progrès en Urologie*, **5**, 221-230.
- [12] Camara, Y. (2022) Prolapsus génitaux opérés au CHU Gabriel Toure: Epidémiologie-technique chirurgicale et pronostic. Thèse de médecine, Université de Bamako, Bamako.
- [13] Wattiez, A., Canis, M., Mage, G., Pouly, J.L. and Bruhat, M.A. (2001) Promontofixation for the Treatment of Prolapse. *Urologic Clinics of North America*, **28**, 151-157. [https://doi.org/10.1016/S0094-0143\(01\)80017-3](https://doi.org/10.1016/S0094-0143(01)80017-3)
- [14] Thakar, R. and Stanton, S. (2002) Management of Genital Prolapse. *BMJ*, **324**, 1258-1262. <https://doi.org/10.1136/bmj.324.7348.1258>
- [15] Diouf, A.A., *et al.* (2020) Aspects cliniques et prise en charge chirurgicale des prolapsus génitaux au centre hospitalier national de Pikine (Dakar, Sénégal). *Journal of African Clinical Cases and Reviews*, **4**, 625-631.