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Research Article

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Surgical Management of Female Genital Prolapse at the Gynecology-obstetrics Department of the National Hospital Center of Pikine (in the Suburbs of Dakar) About 67 Cases

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ABSTRACT

Introduction: *Genital prolapse is a disabling condition. Its treatment is essentially surgical and has seen advances with the advent of laparoscopy. The objectives of this study were to evaluate the surgery of female genital prolapse at the gynecology-obstetrics department of the National Hospital Center of Pikine (CHNP).*

Patients and Method: *This is a retrospective descriptive study of 67 cases of genital prolapse conducted at the gynecology-obstetrics department of the CHNP located in the suburbs of Dakar. The study was carried out over a period of 5 years and 7 months, from January 1, 2016 to July 31, 2021. We took into account epidemiological, clinical, and surgical parameters and their results.*

Results*: Surgical treatment of prolapse represented 3.4% of gynecological surgical interventions. The average age of patients was 55.1 years and patients aged between 60 and 69 years were the majority (30.4%). The average parity was 5.7 and menopausal women represented 70%. Patients had undergone surgical treatment, 84% via vaginal approach, 13% via laparoscopic approach, and 3% via laparotomy. The procedures performed were dominated by triple perineal intervention (36%), colposuspension of Méllier (36%), and laparoscopic promontofixation (13%). Almost all patients (96%) had a favorable evolution during their hospitalization. 4% (3 patients) presented moderate anemia. The average hospital stay was 3 days with extremes of 1 and 6 days. All patients returned home. In the medium and long term, six patients presented genito-urinary symptoms.*

Constipation was found in 17.4% of patients. Recurrence was considered beyond stage 2 of Baden and Walker. We noted 7 cases of residual prolapse (stage I and II) and 3 cases of recurrence, including two after laparoscopy.

Conclusion: *The treatment of genital prolapse has seen many advances in Senegal, particularly at the National Hospital Center of Pikine, which is a local reference. Laparoscopy has revolutionized the management of prolapse in young women.*

Keywords: Prolapse, Surgical Treatment, Vaginal Approach, Laparoscopy, Complications.

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Introduction

Known since antiquity, genital prolapse is a permanent or effort-induced protrusion (ptosis) into the vaginal canal or outside of it, of one or more components of the pelvic viscera following the degradation of their support and suspension system [1]. It is a benign condition but can become disabling especially when associated with urinary disorders, sexual disorders, or defecation problems. Its treatment is essentially surgical. It is a surgery for anatomical but also functional restoration. This surgery particularly presents a multiplicity of techniques and its strategy depends on anatomical modifications, functional disorders, the patient's age and degree of sexual activity, but also the preferences of each surgeon as well as their experience [2]. It has also benefited from technological advances, particularly with the development of laparoscopy, which is a major contribution to the management of prolapse in women during their reproductive

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period. Surgical success is evaluated on the complete restoration of anatomy and improvement of functional disorders, especially in the long term.

Thus, we conducted this study focusing on the surgical treatment of female genital prolapse at the gynecology department of the CHNP regarding 67 cases as well as its short, medium, and long-term results.

Methodology

This was a retrospective, descriptive study of 67 cases of female genital prolapses operated on at the gynecology department of the National Hospital Center of Pikine located in the suburbs of Dakar. These cases were recorded over a period of 5 years and 7 months from January 1, 2016 to July 31, 2021.

Data were collected based on patients' clinical records and entered into the Sphinx V5 software using a previously established data entry mask. The analysis was performed with Excel 2010 and Epi info 7.2 software.

For each patient, epidemiological, clinical, and surgical parameters were studied as well as short, medium, and long-term evolution.

The follow-up period ranged from fifteen days to four years after the intervention, and information was collected from follow-up records, telephone calls, and organized follow-up visits.

Results

Frequency

During our study period from January 1, 2016 to July 31, 2021, 67 patients benefited from surgical repair of genital prolapse out of a total of 1180 surgical interventions, representing a frequency of 3.4%.

Socio-demographic Characteristics

The average age of patients was 55 years with extremes of 26 and 90 years. The 60-69 age group was the majority with a rate of 31%. The average parity was 5.7. The majority of patients (96.8%) had delivered vaginally at least once, with 28% of macrosomic deliveries and 8.8% of dystocic deliveries. Menopausal women represented 70% of cases. History of prolapse repair was found in 7.3% of patients.

Clinical Data

Regarding clinical data, we divided our patients into two groups: menopausal patients (N=47) and patients in the period of genital activity (N=20).

The appearance of a vulvar mass was the main reason for consultation in both groups (86% of patients) followed by stress urinary incontinence (26% of patients). Cystocele was more frequent in menopausal patients (94%) contrary to non-menopausal patients in whom hysterocele was more frequent (85%). We had fewer posterior compartment prolapses in both groups.

Table: Distribution of menopausal and non-menopausal patients according to types of prolapse

Types of prolapse	Number(N)	Percentage (%)
Menopausal women		
Cystocele	44	94
Hysterocele	35	75
Elytrocele	32	68
Rectocele	25	53
Non-menopausal women		
Hysterocele	17	85
Cystocele	16	80
Elytrocele	11	55
Rectocele	11	55

Using the Baden and Walker classification, stage III prolapses were more frequent in both groups for the anterior and middle compartments. At the posterior compartment level, prolapses are less severe; more stage I and II in both groups. However, menopausal patients had more stage IV prolapses.

Table: Distribution of severity grades according to type of prolapse in menopausal and non-menopausal patients

Type of prolapse	Stage I (%)	Stage II (%)	Stage III (%)	Stage IV (%)
Menopausal women				
Cystocele	2.3	29.5	52.3	15.9
Hysterocele	5.9	23.5	55.9	14.7
Elytrocele	37.5	34.4	25	3.1
Rectocele	28	56	12	4
Non-menopausal women				
Cystocele	6.3	50	43.8	00
Hysterocele	5.9	17.6	64.7	11.8
Elytrocele	45.5	45.5	9.1	00
Rectocele	54.5	36.4	9.1	00

Involvement of all three compartments was noted in 72.3% of menopausal patients and in 55% of non-menopausal patients.

Table: Distribution of patients according to menopausal status based on the number of compartments affected

Number of compartments	Menopausal (%)	Non-menopausal (%)
1	19.1	30
2	8.5	15
3	72.3	55

Surgical Data

Preparation for surgery consisted of asking patients to shave their pubic hair 3 to 4 days before the intervention, to empty the rectum upon waking on the day of the intervention, and to come fasting.

The vaginal approach was the main approach with a rate of 84% followed by the laparoscopic approach (13%) and laparotomy (3%).

The triple perineal intervention was the most performed surgical procedure in patients (36%). It consisted of performing a total hysterectomy followed by repair of the anterior prolapse by plication of Halban's fascia with or without a sub-vesical purse string suture and repair of the posterior prolapse by myorrhaphy of the levator ani muscles with or without Richter's sacrospinous fixation.

Mélier's colposuspension was also as frequently practiced as the triple perineal intervention (36%). It was most often performed after a vaginal hysterectomy. It was the technique of choice in patients with involvement limited to the anterior and middle compartments and especially in those with stress urinary incontinence, which it systematically corrects.

Laparoscopic promontofixation was performed in 13% of patients. It was the technique of choice in non-menopausal patients; 45% of interventions in this group. The other interventions consisted of colpocleisis, Bologna's procedure, cervical amputation, and promontofixation by laparotomy.

Table: Distribution of patients according to types of intervention

Approach	Type of intervention	Number(N)	Percentage(%)
Vaginal	Triple perineal intervention	24	36
	Mélier colposuspension with or without hysterectomy	24	36
	Colpocleisis with or without hysterectomy	9	13
	Bologna procedure after hysterectomy	4	6
	Cervical amputation	2	3
Laparoscopy	Promontofixation	9	13
Laparotomy	Promontofixation	2	3

Operative Incidents

We noted 1 case of intraoperative hemorrhage due to injury of the middle sacral artery during a laparoscopic promontofixation.

Operative Results

Short Term: Almost all patients (96%) had a favorable evolution during their hospitalization. 4% (3 patients) presented moderate anemia related to bleeding from dissections of a triple perineal intervention. The average hospital stay was 3 days with a standard deviation of 1.1 days. The extremes were 1 and 6 days. All patients returned home.

Medium and Long Term

Functional Results: Six patients presented genito-urinary symptoms. These included 4 cases of dyspareunia starting from the second month after the intervention, one case of recurrent stress urinary incontinence, and one case of bladder instability. Constipation was found in 17.4% of patients. Pelvic floor rehabilitation was proposed for persistent stress urinary incontinence.

Anatomical Results

Recurrence was considered beyond stage 2 of Baden and Walker. We noted 7 cases of residual prolapse (stage I and II) and 3 cases of recurrence, including two cases of hysterocele initially operated by laparoscopy and one case of cystocele operated vaginally, diagnosed respectively at the 7th, 12th, and 24th month after the intervention. These three patients were reoperated on via the vaginal approach.

Discussion

Limitations of the Study

The retrospective nature of our study with some missing data in the records were the main limiting factors of our study.

Socio-demographic Characteristics

In accordance with the literature data, our study shows that genital prolapse more frequently affects women in their sixties, menopausal, having delivered at least once vaginally, and who consult for a sensation of vulvar mass [3, 4]. However, there is a significant proportion of non-menopausal, relatively young women.

Clinical Data

The predominant involvement of the anterior and middle compartments is found in most series, as well as the predominance of advanced stages [3, 5]. However, we note more cystocele in menopausal patients, as well as more advanced stages and associated functional disorders. This could be explained by the consequences of menopause on the trophicity and resistance of supporting tissues, as well as the longer duration of the pathology in this group. Since genital prolapse can develop earlier in perimenopause, the absence of functional disorders and complete exteriorization of organs can delay seeking medical care, especially in our regions where genital pathologies are often taboo subjects. Thus, it is the appearance of sexual and especially urinary disorders that motivates women to consider their first contact with a healthcare provider.

Surgical Data

Due to its multiple advantages, including the possibility of performing under regional anesthesia, faster post-operative rehabilitation, short hospital stays, the ability to treat the three usual components of prolapse, and the possibility of treating other associated lesions, the vaginal approach predominates in most studies [6]. Similarly, surgical techniques feasible through the vaginal approach, such as triple perineal intervention and Mélli-er's colposuspension, are the most commonly performed [6]. During these interventions, a hysterectomy is most often performed for the treatment of pelvic statics, prevention of recurrence, and reduction of uterine cancer risk [7]. However, it can have an impact on patients' sexuality and contribute to the onset or worsening of constipation, and should not be performed in

young women during their reproductive period, especially those desiring pregnancy. For these women, we preferred laparoscopic promontofixation. This is a technique well-suited for this type of patient, but it is still rarely performed in resource-limited countries and requires a fairly long learning curve.

Surgical Results

Overall, our results were satisfactory with good improvement of symptoms and very satisfactory anatomical restoration in the medium and long term (96%). Constipation was the main functional complication and was especially noted if a hysterectomy had been performed. Patients who underwent laparoscopic promontofixation had fewer functional complications, but two of our three cases of recurrence occurred after this technique. Anatomical success rates after laparoscopic promontofixation range between 80 and 96% in the literature [8] [9], while ours was 77.8% in this group. This shows that there is still progress to be made, even though we record one of the highest implementation rates in sub-Saharan Africa.

Conclusion

The surgery for female genital prolapses remains a large field of application due to the multiplicity of techniques and devices. The emergence of laparoscopy has revolutionized this surgery by allowing a very beneficial conservative treatment in young women with maternity plans. The major challenge remains its development in our resource-limited countries.

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