

STUDY OF PELVIC ORGAN PROLAPSE -A TERTIARY CARE EXPERIENCE

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Abstract: *Pelvic organ prolapse is a common problem among women in developing countries. It is the herniation of uterus into or beyond the vagina as a result of failure of the ligamentous and fascial supports. Pelvic Organ Prolapse (POP) is a common gynaecological condition related to pelvic floor dysfunction in women². It can result in surgery, which is one of the most common gynaecological surgical procedures performed with a lifetime risk of 11–19% in the general female population. A prospective observational study of 80 samples, selected by non-probability convenience sampling method and who met the designed set of criteria, was conducted. In this study maximum number of participants were in stage III and most of them had symptom of something coming out of vagina. Maximum number of participants 42 (52.50%) were in the post- menopausal phase. Further 33 (41.25%) had parity \geq P4. Most of cases 51 (63.75%) had pathology of cystocele. Further 92.50% had undergone surgical repair.*

Keywords: POP, Parity, Cystocele.

Introduction

Pelvic organ prolapse is a common problem among women in developing countries. It is the herniation of uterus into or beyond the vagina as a result of failure of the ligamentous and fascial supports. It often coexists with prolapse of the vaginal walls, involving the bladder or rectum or both.¹

Pelvic Organ Prolapse (POP) is a common gynecological condition related to pelvic floor dysfunction in women². It can result in surgery, which is one of the most common gynecological surgical procedures performed with a lifetime risk of 11–19% in the general female population based on data from High Income Countries (HIC)^{3,4}

The presence of POP can have a detrimental impact on body image and sexuality. Pelvic floor defects result from attenuation of the supportive structures or by neuromuscular dysfunction due to obstetric trauma. Pregnancy itself, without vaginal birth, has been cited as a risk factor as well. Genital atrophy and hypoestrogenism also play important contributory roles in the pathogenesis of prolapse. However, the exact mechanisms are not completely understood.⁵

Many women with pelvic organ prolapse are asymptomatic and do not need treatment. When prolapse is symptomatic, options include observation, pessary use, and surgery. Surgical strategies for prolapse can be categorized broadly by reconstructive and obliterative techniques. Reconstructive procedures can be done by either an abdominal or vaginal approach. Although no effective prevention strategy for prolapse has been identified, considerations include weight loss, reduction of heavy lifting, treatment of constipation, modification or reduction of obstetric risk factors, and pelvic-floor physical therapy⁶.

Patients with pelvic organ prolapse sometimes present very late with huge prolapse. To study the reasons in delay in seeking medical help in these patients is important to decrease morbidity in these patients. Reasons for this may be unawareness about the disease, financial problems, delay in surgical plan of management and prolonged hospital stay for same may cause patients to avoid medical help. Moreover, understanding of clinical presentations and management of POP would help us to further strengthen patient care practices. As this is a tertiary care hospital a large number of patients with pelvic organ prolapse are admitted. With this background, this study was done to determine the risk factors, clinical features, and management practices among patients with POP admitted in hospitals.

1. Aim and objectives

- To study risk factors for pelvic organ prolapse.
- To analyze symptomatology of pelvic organ prolapse.
- To search the reasons for delay in seeking health care in patients with pelvic organ prolapse.
- To study the management strategies in pelvic organ prolapse.

2. Material and Methodology

A prospective observational study conducted in the department of OBGY in tertiary care hospital from 2019-2021. The study was conducted after formal approval of institutional ethical committee. Total 80 samples were selected and who met the designed set of criteria. Informed written consent was taken from patients and their families.

Inclusion criteria:

1. All patients coming to tertiary care hospital with pelvic organ prolapse and treated at our tertiary care centre.
2. Those who are willing to participate in this study.

Exclusion criteria:

1. Pregnant patients with pelvic organ prolapse.
2. Patients with vault prolapse.
3. Patients with rectal prolapse.
4. Patients who do not give consent to be excluded in study.

Clinical grounds for inclusion:

A thorough clinical examination and pelvic examination was carried out which included the local examination of external genitalia. Per Speculum and Per Vaginal examination to look for cervix, vagina, uterus and staging of pelvic organ prolapse. Utero-vaginal prolapse was classified using POP-Q system.

3. Results

A total 80 cases in the study period were analysed. In the present study it was observed that in the most 27 (33.75%) were in the age group of above 60 followed by 22 (27.50%) in 31-40 years and mean age was found to be 50.69 ± 14.43 .

Table 1: Distribution of cases according to age group

S.N.	Age in years	Frequency (n=80)	Percentage	Mean±SD
1	31-40	22	27.50	50.69 ±14.43
2	41-50	20	25.00	
3	51-60	11	13.75	
4	>60	27	33.75	

Most women belonged to Rural areas 54 (67.50%) and 26 (32.50%) were from urban areas.

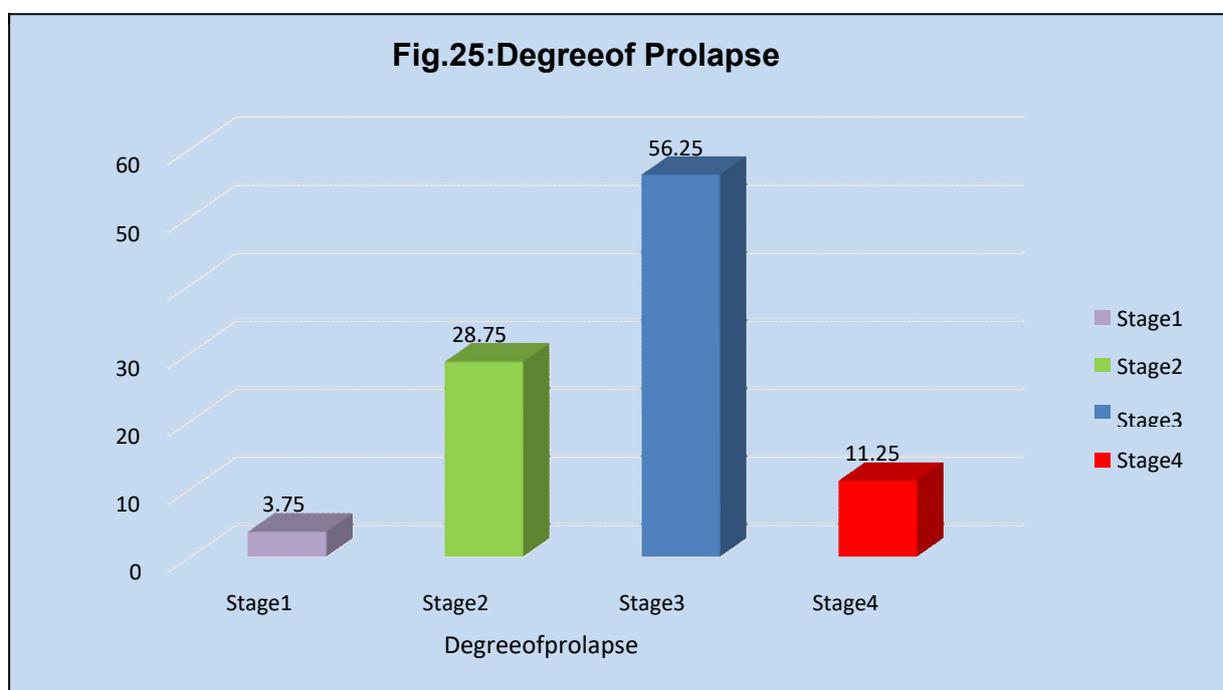
Maximum numbers of participants 32 (40.00%) were of Upper lower class followed by 18 (22.50%) from Lower class.

Table 2: Symptom & stages of prolapse

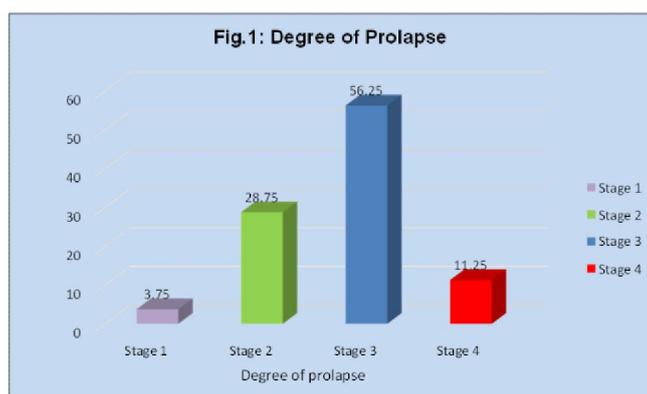
Symptoms	Stage I(n=3)	Stage 2(n=23)	Stage 3(n=45)	Stage 4(n=9)	Total(n=80)
Something coming out of vagina	03 (100%)	23 (100%)	45 (100%)	9 (100%)	80 (100%)
Urological difficulties	02 (66.67%)	13 (56.52%)	17 (37.78%)	06 (66.67%)	38 (47.50%)
Backache	01 (33.33%)	8 (34.78%)	15 (33.33%)	08 (88.89%)	32 (40%)
PV Discharge	02 (66.67%)	03 (13.04%)	09 (20.00%)	03 (33.33%)	17 (21.25%)
Pain in abdomen	00	04 (17.39%)	03 (6.67%)	03 (33.33%)	10 (12.50%)
Defecation difficulties	00	01 (4.35%)	01 (2.22%)	03 (33.33%)	05 (6.25%)
Bleeding	00	00	02 (4.44%)	01 (11.11%)	03 (3.75%)

***Some cases had multiple symptoms**

Majority of the cases were in Stage III and most had symptom of something coming out of vagina. Among all cases studied most of 40 (50.00%) reported that they had onset of symptoms for 1 year.



The reasons for delay in treatment observed were financial problems in 44 (55.00%) of cases, followed by 32 cases (40.00%) which had symptoms were mild symptoms so were delayed in taking treatment. About 25 (31.25%) had lack of awareness, 21 (26.25%) felt it as a social stigma and 15 cases (18.75%) were delayed in treatment due to unavailability of caregiver.



Most of cases 42 (52.50%) were in the post- menopausal phase, followed by 28 (35.00%) cases in menstrual phase and only 10 (12.50%) cases were in peri-menopausal phase.

Most of cases 33 (41.25%) had parity \geq P4.

Table 3: Distribution of cases according to risk factors

SN	Risk factors	Frequency (n=80)	Percentage
1	Home delivery	50	62.50
2	Obesity	26	32.50
3	Inadequate birth spacing	27	33.75
4	History of weight lifting	20	25.00
5	History of prolonged labour	14	17.50
6	Chronic cough	8	10.00

***Some cases had multiple symptoms**

Majority of the cases 50 (62.50%) had home delivery followed by inadequate birth spacing among cases 27 (33.75%). Obesity was also one of the risk factors among 26 (32.50%) cases, history of weight lifting among 20 (25.00%) cases, history of prolonged labour 14 (17.50%) cases and 08 (10.00%) cases with chronic cough.

About 51 (63.75%) had associated compartmental defect of cystocele followed by 25 (31.25%) had rectocele and enterocele was seen in 04 (05.00%) of cases. Further it was found that in some of cases multiple pathology was observed.

Table 4: Line of management

S.N.	Line of management	Frequency (n=80)	Percentage
1	conservative	06	07.50
2	Surgical	74	92.50
	Total	80	100.00

Most of cases 74 (92.50%) had surgical line of management and non-surgical conservative management was carried in 06 (07.50%) cases.

Table 5: Distribution of cases according to type of surgical repair

S.N.	Type of surgical repair	Frequency (n=80)	Percentage
1	Sling surgery	01	01.35
2	Fothergill repair	13	17.57
3	Vaginal hysterectomy with AP repair	60	81.08
	Total	80	100.00

About 60 (81.08%) had undergone vaginal hysterectomy with AP repair followed by 13 (17.57%) had Fothergill repair and 01 (01.35%) had Sling surgery.

Intraoperative complication observed was bleeding seen in 04 (05.00%) cases. Post-operatively wound infection (sling surgery) and UTI was seen among 01 (01.25%) cases respectively.

Total hospital stay was maximum 28 days and minimum stay was 02 days. In which post-operative stay was maximum 07 days and minimum stay being 05 day.

The average total stay was 11.27 days with SD 5.91 and post-operative stay was 04.20 days with SD 1.71.

4. Discussion

Pelvic organ prolapse occurs as a result of disturbance of anatomical and mechanical equilibrium. The normal position, support and suspension of uterus with other pelvic organs rely on an interdependent system of bony, muscular and connective tissue elements. This three-dimensional system, if presents with subtle variation in one part may lead to stresses in other part that eventually lead to alteration or failure of normal anatomy. In theory, if one of these elements fail, the others can supply it within certain limits. Pelvic organ prolapse in young women is rare. The prevalence increases with age and remains stable later on. Common etiological factors leading to prolapse in young women are: vaginal births, obesity, family history, race and ethnicity, alteration in collagen content.

The healthcare utilization for pelvic floor defects is predicted to grow as the population ages. The total number of women who will undergo surgery for pelvic organ prolapse is estimated to increase by 48.2% over the four decades (from 2010 to 2050) as per the study conducted by Wu and colleagues.⁷ Hence in order to have a better understanding of this problem in its entirety, this was conducted at our institute. Our results as compare to few studies were as follows. Women in our present study were in the age group of above 60 years 27 (33.75%) and 22 (27.50%) in 31-40 years. The mean age score was 50.69 year and standard deviation was 14.43. In contrast, most other studies reported that the majority of study women were in the age group of 41-50 years like in Sumathi et.al.⁸² (30%), Patil et.al.⁸³ (35.11%) and Bijwe et.al.⁸⁴ (37%). Main symptom observed was something coming out of vagina (100%), 47.5% reported urological difficulties, 40% complained about backache, PV discharge seen in 21.25 % cases, pain in abdomen was reported by 12.5 % of women, defecation problem in 6.25% and bleeding was observed in 3.75% of women. Similarly, most other studies reported something coming out of vagina as a most common symptom (82.2-98%). Apart from these other symptoms such as urological difficult was observed among participant in study conducted by Patil et.al.⁸³ (93.62%), Sujindra et al.⁹⁰ (69.4%), Joseph et.al.⁹¹ (37.8%) and Sumathi et.al. ⁸² (32%). Backache was seen among 89.34% and 15% of women in a study conducted by Patil et.al.⁸³ and Sumathi et.al.⁸² respectively. Aggravating factors identified in the study, the majority 50 (62.50%) had home delivery followed by inadequate birth spacing among cases 27 (33.75%). Obesity was also one of the risk factors among 26 (32.50%) cases, Parity \geq P4 consist 32 (40%) of study women, history of weight lifting among 20 (25.00%) cases, history of prolonged labour 14 (17.50%) cases and 08 (10.00%) cases with chronic cough. Similarly in study by Singh AG.et.al.⁹⁵ reported 85.60% had home delivery, 49.6% had parity \geq P4 & inadequate spacing. Also, Parulekar MS et.al.⁹³ found that 35.23% had home delivery, 33.6% had parity more than 4 and 25.68% had history of prolonged labour. In contrary to our finding Dora B. et al.⁹⁴ reported majority of cases (87%) having Parity (\geq P4), 67.50% had history of weight lifting, 61.03% had home delivery, 42.90% had chronic cough and 29.90% had history of prolonged labour. Tugume R et al.⁹² found 76.7% had inadequate birth spacing, 65.8% had parity \geq P4, 55.9% had home delivery, history of weight lifting

in 47.3% and history of prolonged labour was seen in 45.2% of study cases. Majority women 74 (92.50%) had surgical line of management and non-surgical conservative management was carried out in 06 (07.50%) women under study. Among the surgical repair 60 (81.08%) had undergone vaginal hysterectomy with AP repair followed by 13 (17.57%) had Fothergill repair and 01 (01.35%) had Sling surgery. Similarly in study by Patil et.al.⁸³ 91.49% women had undergone surgical procedures and 8.51% had conservation management. Also, in study conducted by Sumathi et al.⁸² and Joseph et al. in most cases surgical intervention was carried out i.e. 83% and 85.43% respectively. In another study conducted by Sujindra et al.⁹⁰ reported that 66.3% women underwent surgical procedures (Mainly VH ± repair: 61.1%) and conservative procedures in 33.7% of study women.

5. Conclusion

This study revealed that prolapse development is multifactorial. multifaceted factors such as age >60 years, delivery assisted by non-health professional (home deliveries), inadequate birth spacing, BMI > 30 kg/m², carrying heavy objects, previous history of prolonged labour and chronic cough are the determinants of POP. Factors such as vaginal child birth, advancing age, multiparity as the most consistent risk factors found during the study. Women with symptoms suggestive of prolapse should undergo a pelvic examination and medical history check. Delivery at health institutions, assistance by health professional during delivery, prevention of maternal malnutrition, empowerment of women (through education) to utilize family planning in turn to prevent too late and too many pregnancies, counseling to avoid carrying heavy objects, early pelvic floor assessment/ screening for potential sphincter damage. Patients like very young women, low degree of prolapse and older patients with comorbidities can be managed with conservative measures in. As pelvic organ prolapse is more common in rural population and majority of patients delay medical help due to financial constraints. With the introduction of MJPJAY scheme these group of patients are benefited and resulted in good overall satisfaction. Spreading awareness regarding the same to seek early medical help and with the use of MJPJAY scheme the burden of pelvic organ prolapse in the society can be curtailed.⁹⁵ Singh AG, Choudhary VR, Ghanghoria V, Patel K. Evaluation of intersystem agreement between standard pelvic organ prolapse quantification system and simplified pelvic organ prolapse scoring system. *Int J Reprod Contracept Obstet Gynecol* 2017;6:2031-4.

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