



Incidence and Study of Sociodemographic Factors & Other Risk Factor for Pelvic Organ Prolapse

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Abstract:

Back ground: The burden of pelvic organ prolapse in parous women is enormous. Bangladeshi women suffers a lot due to (POP) pelvic organ prolapse. Minor prolapse or laxity is generally ignored. When serious functional disability develops, women seek treatment advice. Home delivery and subinvolutions during puerperium is thought to predispose to urogenital prolapse. Here the incidence of different degree of prolapse and associated risk factors are assessed.

Materials and method; This prospective observational study was carried out in outpatient department of gynaecology and obstetrics of SSMCMH during the period of January 2018 to September 2018. 100 parous women with subjective symptom of prolapse were included. Degree of prolapse and related risk factors were identified.

Results: Here 53% had Pelvic Organ Prolapse Quantification System (POP-Q) grade I, 32% had grade II and 15% had grade III and IV. Majority showed anterior vaginal wall defect. Cystocele was 77% and perineal tear was 79%. Rectocele was also present in 60% cases. Risk increases with increasing age 45% was >60 years. Multipara (>4 child) had the highest incidence. Also H/O home delivery, delivery by untrained personal, puerperial unusual work load increases the risk.

Conclusion : POP is a common condition. Here the prevalence of grade I and II were high. But grade III and IV requiring surgical treatment among the women was 12% and 3% respectively. Incidence rises with increasing age, parity, prolonged and difficult labour. Birth spacing <2 years and neglected puerperial period also contribute.

Introduction:

Pelvic organ prolapse (POP) is considered to be a major cause of morbidity among women in both high income and low income countries¹. The worldwide prevalence of POP has been reported to be around 9%². POP is common gynaecological condition related to pelvic floor dysfunction in female³. It is the abnormal location of pelvic organ including uterus, bladder, rectum, small intestine into or outside the vagina⁴. Uterine descend is always associated with vaginal descend, so it is called uterovaginal prolapse. Vaginal prolapse may involve prolapse of its anterior wall, posterior

wall or both. When upper part of anterior vaginal wall descends along with the base of the bladder, it is called cystocele. When lower part of anterior vaginal wall descends along with urethra, it is called urethrocele. Upper part of posterior vaginal wall descends along with herniation of pouch of Douglas containing coils of intestine, it is called enterocele. Descend of middle portion of posterior vaginal wall along with anterior wall of rectum is known as rectocele. Lower third of posterior vaginal wall becomes lax due to damage of the perineal body. Depending on the degree of uterine descend there are three types of uterine

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prolapse. POP Q grade of genital prolapse describes pelvic organ prolapse quantification system.

Methods:

It is a prospective observational study carried out in the outpatient department of obstetrics and gynaecology of Sir Salimullah Medical college Mitford Hospital Dhaka from January 2018 to September 2018. A total of 100 women complaining of something coming down per vagina or feeling of heaviness were enrolled in the study. Parous women with history of vaginal delivery were included. Sample was selected consequetively .Informed consent were taken and a questionnaire were supplied to study the risk factors of prolapse. Women were examined to find out different degree of prolapse and associated anatomical change was assessed.

Results:

Table I shows that (53%) of the patient had POP Q grade I ,32% had grade II and remainder are grade III and IV (12% and 3% respectively) .Out of 100 women with POP table II shows that 77% of patient had associated cystocoele,11% had urethrocele,60% had rectocoele and 79% had significant perineal tear. Table III shows that 45% of POP patient was of age group >60 years. Next group of patient was >50 years(29%).Table IV shows sociodemographic factor of POP cases.83% were underweight (BMI<19).Most women (69%) were not heavy worker. Majority (87%) were not smoker .Table V shows that 17% were primipara and 55%had >4 child.97% had H/O home delivery and delivery was prolonged in 92% cases,90% delivery was conducted by untrained dai.84%had repeated child birth with birth spacing <2 years. Table VI shows that regarding puerperial H/O patient 80% showed early resumption of work during that time and 88% showed unusual family work load. Table VII shows that chronic medical condition like H/O chronic cough in 11% and H/O chronic constipation in 19% cases.

Table I: Degree of prolapse among the study case.

| Degree of prolapse | Frequency (n=100) | Percentage |
|--------------------|----------------------|------------|
| POP Q Stage I | 53 | 53% |
| POP Q Stage II | 32 | 32% |
| POP Q Stage III | 12 | 12% |
| POP Q Stage IV | 3 | 3% |

Table-II: Associated Anterior and posterior vaginal wall prolapse.

| | Frequency | Percentage |
|-------------------------|-----------|------------|
| Anterior wall prolapse | | |
| Cystocele | 77 | 77% |
| Urethrocele | 11 | 11% |
| Posterior wall prolapse | | |
| Enterocoele | 9 | 9% |
| Rectocoele | 60 | 60% |
| Perineal tear | 79 | 79% |

Table III: Age distribution of cases of prolapse

| Variables | Frequency (n=100) | Percentage according to age |
|-------------|----------------------|--------------------------------|
| 30– 40 yrs | 05 | 05% |
| 40 – 50 yrs | 21 | 21% |
| 50– 60 yrs | 29 | 29% |
| >60 yrs | 45 | 45% |

Table IV: Sociodemographic history of cases

| Variables | Frequency (n=100) | Percentage |
|------------------------|----------------------|------------|
| Body weight of patient | | |
| Under weight BMI<19 | 83 | 83% |
| Not underweight BMI>24 | 17 | 17% |
| Heavy worker | | |
| Yes | 31 | 31% |
| No | 69 | 69% |
| Smoker | | |
| Yes | 13 | 13% |
| No | 87 | 87% |

Table V: Case distribution according to Obstetrics history (n=100)

| Variable | | Frequency | Percentage |
|-----------------------|---------------------------|-----------|------------|
| Parity of women | Primipara | 17 | 17% |
| | Para 2-3 | 28 | 28% |
| | Multipara>4 | 55 | 55% |
| Place of delivery | Home delivery | 97 | 97% |
| | Institutaral delivery | 03 | 03% |
| Time of labour | Prolonged labour | 92 | 92% |
| | Normal duration labour | 04 | 04% |
| Delivery conducted by | Trained personal | 10 | 10% |
| | Untrained personal | 90 | 90% |
| Birth interval | Repeated child birth | 16 | 16% |
| | Birth at regular interval | 84 | 84% |

Table VI: Puerperal history of patient (n=100)

| Variables | | Frequency | Percentage |
|------------------------------|-----|-----------|------------|
| Early resumption of work | Yes | 80 | 80% |
| | No | 20 | 20% |
| Heavy work during puerperium | Yes | 88 | 88% |
| | No | 12 | 12% |

Table VII: Relevant medical history of patient (n=100)

| Variables | | Frequency | Percentage |
|---------------------------------|-----|-----------|------------|
| History of chronic cough | Yes | 11 | 11% |
| | No | 89 | 89% |
| History of chronic constipation | Yes | 19 | 19% |
| | No | 81 | 81% |

Discussion:

Prevalence of prolapse in general female population is difficult to predict because symptoms do not always correlate with the degree of descend of uterus but major degree of cystocele and rectocele always cause some degree of symptom such as difficulty in voiding, incomplete voiding, urinary incontinence, constipation etc.

The study shows majority (53%) had POP Q grade I prolapse, 32% had POP Q grade II and remainder 15% had grade III and IV prolapse. Recent studies from Ethiopia⁵ and Tanzania⁶ showed prevalence ranging from 1% upto 64% based on clinical examination. Study conducted in Nepal showed

38% of women had grade III and IV POP which require surgical treatment⁷. Difference here is due to fact that women complaining of something coming down through vagina were enrolled in the study. In Tanzanian study⁶, the median age of women were 46 years which is lower than our study group. here >60 years age group was majority. In Ethiopian⁵ study, the median age was 35 years. Increasing age was identified as risk a factor in this study and this is consistent with other study in Low and Low Middle Income Countries (LMIC)^{8,9}. A Gumbian study showed that women with eight or more delivery had 15 times higher risk of POP.¹⁰ Here 55% had delivered 4 child or

more. This study showed majority of women were not heavy worker(69%).Farmer women and women who were involved in petty trading had an increased risk of POP grade II-IV⁶. Our study showed that majority of women were underweight (BMI<19) 83%. But a recent systemic review and meta analysis have shown that obese and overweight women were more likely to develop POP compare to women with normal BMI¹¹

This study shows that majority of women had H/O home delivery 97%, prolonged labour 92% and delivery conducted by untrained dai 90%.This is consistent with other studies from low income countries where it has been documented that women who have experienced a prolonged labour have an almost two times times increased risk of POP II- IV^{12,13}. Birth spacing <2 years is also a contributing factor. Here 84% women had repeated childbirth at frequent interval. Here the study shows early resumption of work and unusual family work during puerperium is another risk factor.Chronic medical condition is a negligible risk factor here.

Conclusion:

Vaginal delivery with consequent injury to supporting structures is the single most important predisposing factor in producing prolapse. Repeated childbirth at frequent interval, Poor nutritional status of mother, early resumption of work and heavy work during puerperium causes subinvolution of genital organ and laxity of support. Risk increases with advancing age and parity. Bangladeshi women suffers a lot from prolapse of pelvic organ. Specially these cases are unnoticed and neglected in most of the cases. These ladies come to the doctor at the end stage of their sufferings where serious micturition or defeacation problem arises or decuibitous ulcers develop. This problem also put them to major degree of social problem. Proper antenatal care and counseling, care during childbirth, adequate family support during puerperium, proper nutritional care of mother and proper health education of women can reduce the incidence of genital prolapse of our women and thereby reducing their suffering.

References:

1. Gunasekera P., Sazaki J. and Walker G., Pelvic organ prolapse: don't forget developing countries. *Lancet*,2007.369(9575):p. 1789-90.
2. Vos T.,et al.,Years lived with disability(YLDs)for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Diseases Study 2010. *Lancet*, 2012.380(9859):p.2163-96.
3. Akeel NY, Gurland B,Hull T. Pelvic Floor Disorders Related to Urology and Gynecology.In *Fundamentals of Anorectal Surgery 2019*(pp.(571-582).Springer, Cham.
4. Haylen BT ,Maher CF,Barber MD,Camargo S,Dandolu V,Digesu A,Goldman HB,Huser Milani AL,Moran PA, Schaer GN, Withagen MI.An International Urogynecological Association(IUGA)/International Continence Society(ICS) .*Int Urogynecol J*.2016;27(2): 165-94
5. Belayneh T, Gebeyehu A, Adefris M, Rortveit G, Awoke T. Pelvic organ prolapse in Northwest Ethiopia: a population-based study. *Int Urogynecol J*. 2019:1-9.
6. Masenga GG, Shayo BC, Rasch V. Prevalence and risk factors for pelvic organ prolapse in Kilimanjaro, Tanzania: A population based study in Tanzanian rural community. *PLoS One*. 2018;25, 13(4).
7. UNFPA. Status of reproductive morbidities in Nepal, 2006 Kathmandu; UNFPA, (2006).
8. Megabiaw B., et al., Pelvic floor disorders among women in Dabat district, northwest Ethiopia: a pilot study. *Int Unogynecol J* ,2013. 24(7): p.1135-43.
9. Fitchett JR, Bhatta S, Sherpa TY, et al. Non-surgical interventions for pelvic organ prolapse in rural Nepal: a prospective monitoring and evaluation study. *JRSM Open*. 2015;6(12):205427041560811
10. Scherf C, Morison L, Fiander A, Ekpo G, Walraven G. Epidemiology of pelvic organ prolapse in rural Gambia. West Africa. *BJOG* 2002; 109: (4) 431-436.
11. Wusu-Ansah OK, Opare-Addo HS. Pelvic organ prolapse in rural Ghana. *Int J GynaecolObstet*. 2008;103:121-4.
12. Lien Y-S, Chen G-D, Ng S-C. Prevalence of and risk factors for pelvic organ prolapse and lower urinary tract symptoms among women in rural Nepal. *Int J Gynaecol Obstet*. 2012;119(2):185-8.
13. Giri A., et al., Obesity and pelvic organ prolapse:a systemic review and meta-analysis of observational studies,*Am J Obstet Gynecol*,2017.217(1):p.132-6