A ONE-YEAR REVIEW OF PELVIC ORGAN PROLAPSE AT ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE, ADDIS ABABA ETHIOPIA

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ABSTRACT

BACKGROUND: Pelvic organ prolapse is the descent of anterior vaginal wall, posterior vaginal wall, uterus and after hysterectomy the apex of the vagina through the vaginal canal. Different risk factors are incriminated as a cause including multi parity, heavy lifting and hypo estrogenic state like menopause.

OBJECTIVE: To review the sociodemographic data, clinical profile and management of patients admitted with the diagnosis of pelvic organ prolapse at St Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia between December 1 2015 and November 30 2016.

METHOD: A facility based descriptive cross-sectional study was conducted. A structured questionnaire was used to collect sociodemographic characteristics, clinical profile, type of operation done and acute complication of the surgery. Data was entered and analyzed using SPSS statistical package version 16.

RESULT: A total of seventy-four patients with POP were admitted and included in the study. Majority of patients with POP operated at St Paul's hospital millennium medical college are Gurage in ethnicity 42 (57%), postmenopausal 48 (63.9%) and grandmultipara 44(59.4%). Vaginal hysterectomy with anterior colporrhaphy is the commonest surgical procedure done. The contribution of POP out of the major gynecologic operations done in SPHMMC during the study period was 15 %.

CONCLUSIONS: Pelvic organ prolapse contributes a significant percentage of major gynecologic procedure and more common among Gurage ethnicity. Further study in the more prevalent area to identify any peculiar risk factors and preventive strategies of the known risk factors is of great importance.

KEY WORDS: Pelvic organ prolapse, vaginal hysterectomy, Uterovaginal prolapsed

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INTRODUCTION

Pelvic organ prolapse (POP) is the descent of anterior vaginal wall, posterior vaginal wall, uterus and, the apex of the vagina after hysterectomy, through the vaginal canal[1]. It is due to defects in the support structures of the uterus and vagina namely the uterosacral ligaments, the cardinal ligaments complex and connective tissue of the urogenital membrane[2].

A study done at Gondar University and Gandhi Memorial hospitals have showed that POP accounted for 19.9% and 17.2 % of all gynecologic operations respectively[3]. In another cross-sectional study conducted in Ejura-Sekyidumasi, Ashanti region in rural Ghana showed that POP was observed in 21 (12.1%) women[4]. Community based reproductive health survey at was Gambia showed that uterovaginal prolapse (UVP) was present in 46% of the women[5]. A retrospective review of all cases of genital prolapse admitted and operated in the university of Port Harcourt Nigeria teaching hospital showed that genital prolapse accounted for 37.5 per 1000 gynecological admission[6]. According to a population-based survey carried out by the United Nations Population Fund, World Health Organization and the Institute of Medicine at Tribhuvan University in 2006, more than 600,000 Nepali women suffer from some form of uterine prolapse. Of these women, nearly 200,000 are in immediate need of surgery[7].

A variety of surgical procedures has been used as a standard of care for patients with POP. The major operations performed for patients with UVP in JUSH during the study period were vaginal hysterectomy with anterior colporrhaphy and posterior colpoperinorrhaphy, 76.7% and 14.3%, respectively. Whereas the remaining had vaginal hysterectomy with sacrospinous fixation and manchester operation[8]. In university of Nigeria Teaching Hospital, Enugu - Nigeria 44% of the women had vaginal hysterectomy with pelvic floor repair. Manchester repair was done for 2% of them while 12% had pessary insertion[9].

This study was conducted to review the sociodemographic data, clinical profile and management of patients admitted with the diagnosis of pelvic organ prolapse at St Paul's Hospital Millennium Medical College (SPHMMC), Addis Ababa, Ethiopia.

RESULTS

Seventy-six patients were initially enrolled during the study period between December 1 2015 and November 30 2016. But two of the patients had been discharged without being operated and has been excluded from the study. All 74 patients had a complete response rate and have been investigated.

The contribution of POP out of the major gynecologic operations done in SPHMMC during the study period was 15%. More than half of the study population were Gurage in ethnicity accounting for 56.8%, followed by Oromo (23 %), Amhara (17.6%), and Tigray (1.4 %).

Majority of the patients were from outside Addis (73 %) and have parity of five or more. The mean age of patient with POP is 48.3 (± 12.5) years old with a range of 29-80 years. Farmers and house wives account the majority of the cases each accounting 27%, and 60.8 % respectively. The majority of the patients

65 (87.8%) are illiterate and never attended school as shown in Table 1.

Table 1- Sociodemographic characteristics of patients with POP operated at SPHMMC, Addis Ababa, Ethiopia 2016

Category		No.	%
Age (years)	≥ 40	55	74.3
	< 40	19	25.7
Marital status	Married	47	63.5
	Widowed	22	29.7
	Single	3	4.1
	Divorced	2	2.7
Place of residency	Out of Addis	54	73
	Addis	20	27
Menstrual status	Postmenopausal	48	63.9
	Premenopausal	26	35.1
Religion	Orthodox Christian	40	54.1
	Muslim	30	40.5
	Protestant	4	5.4
Occupation	House wife	45	60.8
	Farmer	20	27.0
	Employed	5	6.8
	Merchant	4	5.4
Educational status	Illiterate	65	87.8
	Read and write	5	6.8
	Grade 1-8	3	4.1
	Grade 9-12	1	1.4
Parity	Para 1	3	21.4
	Para 2-4	26	35.1
	Para 5 and above	44	59.4

All patients with POP in SPHMMC came with presenting complaint of mass per vagina. Some of the additional symptoms were urinary complaint (14.9 %), and bowel complaint (1%). The mean duration of symptoms was 2.5 (± 3) years (range 2 - 15years).

Sixty-four (86.5%) of them had no evidence of urinary tract infection up on urine analysis, while 10 (13.5%) of them had evidence of urinary tract infection like bacteria, leucocytes or nitrites.

Pap smear was done for 49 (66.2%) of the patients. Only one patient (1.4%) had positive result for Pap smear which was cervical intraepithelial neoplasia (CIN) I, while 48 (64.9%) of them had negative Pap smear result. Thirty-eight (51.4%) of the patients had stage three POP, 24 (32.4%) had stage four, while 11 (14.9%) had stage two POP. One patient had stage one POP with cervical elongation. The pre-operative and post-operative haematocrit levels were 42.3 (± 3.2) with range 29.4 - 51 and 35.5 (±3.6) with range 21-42, respectively. The pre-operative and post-operative stays for the study group were 5.3 (± 3.2 days) with range 1 - 23 and 4.1 (± 1.3) days with range 2 -12, respectively.

Vaginal hysterectomy is done for all patients. In addition to vaginal hysterectomy,the major operations performed during the study period were, vaginal hysterectomy with anterior colporrhaphy (50%). For two patients, partial colpoclesis was done. Both were postmenopausal and not sexually active. For one patient with stage one POP and cervical elongation, tracehlectomy was done. The average operation time for the surgeries was 86.55 minutes (range 50-300 minutes).

None of the patients had significant postoperative complications. Two patients had developed significant anemia (hematocrit of 21% and 24%) and no death was reported during the study period.

DISCUSSION

The study revealed that uterine prolapse surgeries account for 15% of major gynecologic surgeries which is consistent with other studies. At Gondar POP accounted for 19.9% of all gynecologic operations while in Gandhi it accounts 17.2%.

The ethnic distribution shows, more than half of the patients are Guraghe, 56.8%, followed by Oromo, 23% and Amharas, 17.6%. The study in Gandhi Hospital showed that Guraghes account for 33.3%, 32.2 % were Amharas, 27.2 % were Oromo. A recent case control study in Wolaita Sodo university referral teaching hospital also revealed that, those patients with POP are more highly likely to involve in Kocho (traditional diet in Gurage region) making, which is physically demanding job. This could explain the similarity in a study at SPHMMC and Gandhi Hospital[10]. Unlike the two, the study in Jimma showed that 72.9% of the patients who were operated for UVP in JUSH were Oromo, and the others accounts only a quarter. This might be due to the difference in Geographical location.

The mean age of patients with POP in our study was 48.3 (± 12.5) years old with a range of 29-80 years. Relatively older women are affected than the patients studied in Jimma, Gondar or Ghandi which is 42.43 (± 10.4), 38.09 (±11.52) and 42.17 (±13.6) years respectively[3,8]. It is also similar to the study done in, Ghana which showed that the mean age to be 45.5 (± 18.5) years[4]. This marked increase in the magnitude of POP among old age patients is associated with hypo estrogenic state which will result in loss of connective tissues which serve as a pelvic support.

All the studies done in Gondar, Gandhi and Jimma showed that majority of patients with UVP were of parity greater than five which is consistent with this study. There is a clear association between increased parity and risk of prolapse and as described on pelvic organ support study, the risk of POP increased 1.2 times with each vaginal delivery [(11)]. In this study, the maximum duration of labor is 96 hours which is similar with study done in JUSH which showed to be more than 24 hours in 47.3% of the cases[8].

Seventy three percent of patients in this study were from outside Addis Ababa. According to the study done by Lukman Y, of the 125 housewives from the Gondar group, 92.2% were from the rural area where as the Gandhi memorial group revealed that 90.5% (out of 158 subjects) were rural housewives. The study done in JUSH showed that 80.6% live outside Jimma city. This is explained with low access of health service by the rural population and lack of awareness on important risk factors and preventive measures[3, 8].

The study showed that farmers and house wives account the majority of the cases each accounting 27%, and 60.8 % respectively, while 5.4% are merchants, and 6.8% are employed. This study has similarity with the study done in Jimma in which case, farmers, house wives, merchants, and the employed account for 68.2%, 25.6%, 4.7% and 1.6%, respectively.

There is also similar finding in the study in Gondar and Gandhi. The farmers and house wife of farmers are highly likely to involve in highly demanding activities which will eventually leads to POP. Illiteracy and poor economic status was found to be much common in these patients which in turn contribute to poor nutrition which is associated with uterine prolapse.

The study showed that POP is more common in older postmenopausal women, which is related to the hypo estrogenic state associated with menopause. There are also significant number of young patients which can be attributed to the young age of marriage and child bearing which is particular to Ethiopia when compared to other studies. There was one patient in our study who is young and nulliparous without any identifiable risk, demonstrating that there could be some genetic component involved in POP.

In conclusion, Pelvic organ prolapse contributes to a significant percentage among all gynecologic surgeries at SPHMMC. Among the various socio-demographic characteristics, the burden is much common among multiparas, postmenopausal, Illiterates and those with Gurage ethnicity. Though not common, POP also occurs in young, nulliparous women. All patients has undergone vaginal hysterectomy and suspension surgeries should also be part of the standard treatment for patients with POP at SPHMMC. Health awareness on the risk factors including multiparity, prolonged labor and physically demanding works is important as one method of reducing the burden. Further study on areas where the burden is high, particularly in Gurage region, is mandatory for any modifiable factor. Long term follow-up of the different surgical techniques for any possible long-term complication is also important to consider.

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