

ORIGINAL ARTICLE:**Characteristics of women with uterine prolapse at Dr. Soetomo Hospital, Surabaya, Indonesia**

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ABSTRACT

Objective: The aim of this study was to analyze the incidence, sociodemographic characteristic and risk factor patient with uterine prolaps in Dr. Soetomo Hospital period 2016.

Materials and Methods: This study using observational descriptive study.

Results: There were 41 subjects of this study with uterine prolaps. which is mostly on age 51-60 years old (37%). Uterine prolaps grade III was the frequent (29%). Uterine prolaps mostly happened in multiparity (93%) than primiparity (7%). All of the prolaps uterine patient giving birth by vaginal delivery. Uterine prolaps most commonly occurs after menopause (80%). 28 patient (68%) with uterine prolaps underwent surgery.

Conclusion: The incidence of uterine prolaps dramatically increase especially uterine prolaps grade III. Multiparity, vaginal delivery, and post menopausal were the main risk factor. This could be reduce the quality of life.

Keywords: uterine prolaps; cervic organ prolaps; POP-Q

ABSTRAK

Tujuan: Untuk mengetahui angka kejadian, karakteristik sosiodemografi, dan faktor resiko pasien dengan prolaps uteri di Poli Uroginekologi RSUD dr. Soetomo Surabaya tahun 2016.

Bahan dan Metode: Metode penelitian ini menggunakan metode deskriptif observasional.

Hasil: Dari hasil penelitian ditemukan sebanyak 41 pasien dengan prolaps uteri. Pada kasus prolaps uteri terbanyak pada kelompok usia 51-60 tahun (37%). Proplaps uteri grade III paling banyak dialami, (29%). Dari segi paritas, prolaps uteri banyak terjadi pada multiparitas (93%) bila dibandingkan dengan primipara (7%). Semua pasien dengan prolaps uteri persalinannya secara pervaginam. Pasien yang telah menopause dan mengalami prolaps uteri yaitu sebanyak 33 orang (80%). Pada penelitian ini, sebanyak 28 pasien (68%) menjalani tindakan operatif.

Simpulan: Angka kejadian prolaps uteri terus meningkat, terutama prolaps uteri grade III. Multiparitas, persalinan pervaginam, dan menopause merupakan faktor resiko utama. Hal ini dapat menurunkan kualitas hidup wanita.

Kata kunci: Prolaps uteri; prolaps organ panggul; POP-Q

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INTRODUCTION

Pelvic organ prolapse (POP) is defined as the descent of one or more of the anterior vaginal wall, posterior vaginal wall, vaginal crest (cervix to uterus), or stump after hysterectomy. POP affects nearly half of the women population aged 50 and older with a prevalence of 30% to 50% in their lifetime. Women with normal life expectancy have 11 to 12% chance of having at least one surgery due to prolapse or incontinence, with 29% chance of having reoperation by the age of 79.¹

Pelvic organ prolapse (POP) is considered a defect in the anatomical support of the pelvic viscera. It may result from a series of long-term failures of the support and suspension mechanism of the uterus and vaginal walls. Defect in the supporting structures result in the descent of structures that are normally located adjacent to the vaginal dome. The damage to the supporting structures begins during the first normal vaginal delivery, then subsequent deliveries will contribute to prolapse due to maternal pushing, pressure on the fundus of uterus and the pulling force by the birth assistant, both skilled and unskilled birth assistants are capable of causing damage to the pelvic floor and its' supporting structures.²

Complaints associated with prolapse correlate with the anatomical structure or severity of the "lump" and are often nonspecific. Women with uterine prolapse usually make a complaint of "lumpy" or "heavy" sensation in the vaginal area, recurring bladder irritation symptoms, urinating difficulty, incontinence or difficulty on voiding stools. Other symptoms such as back or pelvic pain may or may not be associated with prolapse.³

According to the POP-Q system, the severity of uterine prolapse can be classified into 4 grades. First, the most distal portion of the prolapse is more than 1 cm above the level of the hymen. Second, the most distal portion of the prolapse is 1 cm or less proximal or distal to the hymenal plane. Third, the most distal portion of the prolapse protrudes more than 1 cm below the hymen but no farther than 2 cm less than the total length of the vagina (for example, not all vagina has prolapsed). Fourth, vaginal eversion is basically complete.

The diagnosis is made by history taking, physical and other supporting examinations. During history taking, it is essential to ask about complaints of any lump emerging from the vagina. Symptoms associated with prolapse such as vesicocele and rectocele should be explored further. Physical examination in lithotomy position is used to determine the presence of uterine prolapse and its severity degree.⁴

Cases of uterine prolapse increase along with the increasing life expectancy of women. In the United States, the age associated with the incidence of uterine prolapse is 50 years and older, accounting as many as 2.7 – 3.3 cases per 1000 women. Another study in England found 2 cases of uterine prolapse per 1000 women. Approximately 200,000 uterine prolapse surgeries are performed in the United States each year.⁴ However, the extent of the uterine prolapse problem in Indonesia is not yet known.

MATERIALS AND METHODS

This study was a descriptive study regarding uterine prolapse in the Gynecology Clinic of Dr. Soetomo Hospital, Surabaya from January to December 2016. The data was collected from medical records of Urogynecology Clinic of Dr. Soetomo Hospital, Surabaya. The diagnosis of uterine prolapse was determined through history taking, physical examination and further investigations. The inclusion criteria consisted of all patients diagnosed with uterine prolapse at the Urogynecology Clinic of Dr. Soetomo Hospital, Surabaya during the mentioned period.

RESULTS AND DISCUSSION

A total of 41 cases of uterine prolapse with an average of 1 new case every week were reported at Urogynecology Clinic of Dr. Soetomo Hospital, Surabaya in 2016. These patients' age ranged from 30 to 93 years old. Uterine prolapse cases constituted 7.96% of 515 outpatient cases in the Urogynecology Clinic of the Obstetrics and Gynecology Department, Dr. Soetomo Hospital, Surabaya during the study period. Table 1 showed the age distribution and parity history of the 41 uterine prolapse cases in this study.

Data of the medical record stated that there are 41 cases of uterine prolapse. The patients aged from 51 – 60 years were recorded as the age group with highest cases number involving 15 people (37%). Forty one women (100%) had history of normal vaginal labor and 3 of them (7%) had one parity. Most cases of uterine prolapse were experienced by patients with 2 – 4 parities, specifically there were 28 cases (68%).

Twenty two patients (54%) with uterine prolapse came from Surabaya while the rest were referrals from other cities in East Java. Most patients had main job as farmers, which amount to 18 women (44%), while the most common educational level of uterine prolapse patients in this study was junior high school graduate, which sum up to 14 patients (34%). The detailed

sociodemographic characteristics of the uterine prolapse patients were shown in Table 2.

Eight (20%) cases of uterine prolapse occurred before menopause, while the rest occurred post menopause. Table 3 showed the onset and severity of uterine prolapse in 41 patients involved in this study. Thirty eight patients (93%) with uterine prolapse had vesico-

celes with varying severity degrees, of all patients only 3 (7%) did not have vesicocoeles. Table 4 showed the severity of vesicocoeles in various degree of uterine prolapse suffered by 41 patients involved in this study. A total of 28 patients (68%) with uterine prolapse underwent surgery, whilst 13 (32%) of them were treated non-operatively.

Table 1. Distribution of uterine prolapse patients according to age and parity history

	Variables	Total	Percentage
Age (in years)	< 40	1	2
	41-50	10	24
	51-60	15	37
	61-70	9	22
	> 70	6	15
	Total	41	100
Parity	1	3	7
	2-4	28	68
	5-6	8	20
	> 6	2	5
	Total	41	100

Table 2. The sociodemographic characteristics of the uterine prolapse patients

	Variables	Total	Percentage
Job	Farmer	18	44
	Merchant	9	22
	Others	14	34
	Total	41	100
Educational level	Unschooling	4	10
	Elementary school graduate	10	24
	Junior high school graduate	14	34
	Senior high school graduate	13	32
	University graduate	0	0
	Total	41	100
Origin	Surabaya	22	54
	Sidoarjo	4	10
	Gresik	3	7
	Pasuruan	3	7
	Nganjuk	2	5
	Others	7	17
	Total	41	100

Table 3. The onset and severity degree of uterine prolapse

Onset	Severity of uterine prolapse				Total
	Grade I	Grade II	Grade III	Grade IV	
Premenopause	2	4	2	0	8 (20%)
Postmenopause	7	7	10	9	33 (80%)
Total	9 (22%)	11 (27%)	12 (29%)	9 (22%)	41 (100%)

Table 4. The severity of vesicocele in various degree of uterine prolapse

	Uterine Prolapse Severity Degree				Total	
	Grade I	Grade II	Grade III	Grade IV		
Vesicocele	None	0	2	1	0	3 (7%)
	Grade I	1	1	0	0	2 (5%)
	Grade II	7	8	5	0	20 (49%)
	Grade III	1	0	6	8	15 (37%)
	Grade IV	0	0	0	1	1 (2%)
	Total	9 (22%)	11 (27%)	12 (29%)	9 (22%)	100 %

Uterine prolapse was not a rare gynecological condition in Dr. Soetomo Hospital as shown in this study consisting of 41 cases with varying complaints and symptoms associated. Women with lower severity degrees or without severe symptoms might not visit any health facilities. Prevalence of 7.96% out of all the outpatient population in this study might show an indication that many more women suffered from this disease in the community. Uterine prolapse was considered as a non-life threatening condition, however it affected the quality of life of women suffering from varying degrees of this disease.

This study found 41 patients experiencing uterine prolapse. Most complaints of prolapse came from the age group of 51 – 60 years old. Grade III uterine prolapse was the most common severity degree found. High incidence of uterine prolapse was more common in women who had experienced menopause. Mothers with 2 or more children was found to have higher incidence of uterine prolapse in this study. More than half of the cases in this study were treated operatively.

This study involved 41 patients suffering from uterine prolapse. The > 51 years old age group had the highest number of patients, involving 30 women (74%). This result was in accordance with the study conducted by Luber et al. (2001) which stated that the highest number of uterine prolapse incidence occurred at the mean age of 61.5 years old. This was because hypoestrogen condition after menopause in women triggered the weakness of the supporting tissues in the pelvic floor.⁵

Lifestyle and work related activities that result in increased intra-abdominal pressure such as lifting heavy objects and activities which require valsalva maneuvers directly contribute to the formation of pelvic organ prolapse.⁶ In this study, 66% of uterine prolapse patients worked as farmers and merchants. Their occupation as farmers and traders, added with their parity history are the factors that might be responsible for uterine prolapse. This result was conforming to another study conducted in western Africa which stated that parity and physical activity took on a role on the development of uterine prolapse in more than 60% of the patients.^{7,8}

Pregnancy and childbirth are part of the risk factors for uterine prolapse. Increasing number of parity is associated with pelvic damage, even if delivery was assisted by skilled personnel.⁹ This study found 38 uterine prolapse patients (93%) with 2 or more parity history. Long and difficult labor, even for the first time having labor, contributed significantly in damaging the pelvic floor. The dangerous behavior of unskilled birth assistant such as putting force on the fundus, using uterotonics, and incorrect technique of delivering the placenta cause damage to the pelvic floor thus causing uterine prolapse.¹

The uterine prolapse and vesicocele were the most common and concurrent POP. Only three (7%) out of 41 uterine prolapse patients did not have vesicocele. Very few women with uterine prolapse were admitted to hospital. They might have to travel long distances to get to the hospitals, lack financial resources or be afraid to get caught in the stigma. Prolonged delay of admitting patient to the hospital might cause more complications and increased morbidity. Defecating difficulty, urinary retention, and increased discomfort associated with prolapse caused sexual dysfunction, disharmony of marriage and reduced socioeconomic activities.

There are two possible therapy to uterine prolapse which are conservative and operative treatment. Conservative or the non-operative treatment is carried out in 2 ways: First, lifestyle intervention and pelvic floor muscle training. The main objective is to resolve complaints and prevent the aggravation of prolapse. Second, insertion of pessary equipment

Operative treatment aims to correct anatomical defects, the route of operation is done per vaginam or through abdomen either through laparotomy or laparoscopy. In the future, prolapse management should focus on disease prevention and further understanding of the pathophysiology of POP, including the role of collagen, connective tissue, nerve and muscle injury, and regeneration.¹⁰

CONCLUSION

Pelvic organ prolapse (POP) is defined as the descent of one or more of the anterior vaginal wall, posterior vaginal wall, vaginal crest (cervix to uterus), or stump after hysterectomy. Uterine prolapse is not a life-threatening condition, but the varying degrees of this disease affect patients' quality of life. Not only physical problems, POP also causes psychological, social and economic problems that causes disruption to patient's quality of life. Therefore, POP should be treated holistically and approached through multidisciplinary aspects.

Most complaints of uterine prolapse came from those in the age group of 51 – 60 years old. Grade III uterine prolapse was the most common prolapse. The incidence of uterine prolapse might increase in women who had experienced menopause, parity of 2 or more children and had low levels of education. Vaginal delivery could also increase the incidence of uterine prolapse. There were two ways of treating uterine prolapse which either through non-operative and operative measures.

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